细胞遗传质量鉴定检测

Cell Line Authentication Service

STR 基因型检测报告

样品信息

样品编号:

| 客户样本编号 | 公司编号   |
|--------------|------------|
| HepG2        | 20220704-08 |

样品数量：1

样品性状：细胞系

检测项目：STR

送检单位：富衡生物

检测方法：用 Axygen 的基因组抽提试剂盒提取 DNA，采用 21- STR 扩增方案扩增，在 ABI 3730XL 型遗传分析仪上对 STR 位点和性别基因 Amelogenin 进行检测。

检测结果

(一) 检验基本情况

| 公司编号 | 多等位基因 | 匹配细胞系 | 细胞库 | EV 值 | 匹配说明 |
|-----------|------------|------------|--------|-------|----------|

1
样本基因型检验结果

- 多等位基因指三等位及以上基因现象。
- 本次检测各细胞分型结果良好。
- 每样本描述。
- 20220704-08：该株细胞 DNA 分型在细胞系检索中找到完全匹配的细胞系，DSMZ 数据库显示细胞名为 HEP-G2，细胞号对应 180。本次检测在该细胞系中没有发现多等位基因。

备注：待测细胞系与收录于 ATCC, DSMZ, JCRB 和 RIKEN 数据库的细胞系 STR 数据进行比对，未收录于以上细胞库的细胞系将无法匹配。

样本分型结果

| Loci       | 送检细胞 STR 信息 | 细胞库细胞 STR 信息 |
|------------|-------------------|---------------------|
|            | Allele1 | Allele2 | Allele3 | Allele1 | Allele2 | Allele3 |
| D5S818     | 11      | 12      |         | 11      | 12      |         |
| D13S317    | 9       | 13      |         | 9       | 13      |         |
| D7S820     | 10      | 13      |         | 10      | 13      |         |
| D16S539    | 12      | 13      |         | 12      | 13      |         |
| VWA        | 17      | 17      |         | 17      | 17      |         |
| TH01       | 9       | 9       |         | 9       | 9       |         |
| AMEL       | X       | Y       |         | X       | Y       |         |
| TPOX       | 8       | 9       |         | 8       | 9       |         |
| CSF1PO     | 10      | 11      |         | 10      | 11      |         |
| D12S391    | 21      | 25      |         |         |         |         |
| FGA        | 22      | 25      |         |         |         |         |
| D2S1338    | 19      | 20      |         |         |         |         |
| D21S11     | 29      | 31      |         |         |         |         |
其他说明

（一） 分型方案及位点分布

| 方案 | 方案 1 | 方案 2 | 方案 3 | 方案 4 |
|------|--------|--------|--------|--------|
| 1    | D3S1358| D8S1179| D19S433| AMEL   |
| 2    | VWA    | D21S11 | TH01   | D1S1656|
| 3    | D7S820 | D16S539| D13S317| D5S818 |
| 4    | CSF1PO | D2S1338| TPOX   | D12S391|
| 5    | PENTAE | PENTAD | D18S51 | FGA    |
| 6    |        |        |        | D6S1043|

实验方案及位点

（二） STR 数据库比对

本公司采用 DSMZ tools 进行细胞系比对，其中包含来自于 ATCC, DSMZ, JCRB 和 RIKEN 数据库的 2455 个细胞系 STR 数据。如果待检测细胞未收录于以上细胞库或这是自行建立的新细胞系将无法进行比对，用户需根据细胞分型结果自行与其他数据库进行比对。
# 细胞遗传质量鉴定检测

**Cell Line Authentication Service**

---

**STR 基因型检测报告**

## 样品信息

| 样品编号： |  |
| --- | --- |
| 客户样本编号 | 公司编号 |
| HUH-7 | 20220711-01 |

- **样品数量：** 1
- **样品性状：** 细胞系
- **检测项目：** STR
- **送检单位：** 富衡
检测方法：用 Axygen 的基因组抽提试剂盒提取 DNA，采用 21- STR 扩增方案扩增，
在 ABI 3730XL 型遗传分析仪上对 STR 位点和性别基因 Amelogenin 进行检测。

检测结果

（一） 检验基本情况

| 样本编号 | 公司编号 | 多等位基因 | 匹配细胞系 | 细胞库 | EV 值 | 匹配说明 |
|----------|-----------|-------------|-------------|--------|-------|----------|
| HUH-7    | 20220711-01 | 无          | HUH-7       | JCRB   | 1.0   | 完全匹配 |

样本基因型检验结果

● 多等位基因指三等位及以上基因现象。
● 本次检测各细胞分型结果良好。

（二） 各样本描述

● 20220711-01：该株细胞 DNA 分型在细胞系检索中找到**完全匹配**的细胞系，JCRB 数据库显示细胞名为 HUH-7，细胞号对应 JCRB0304。本次检测在该细胞系中**没有发现多等位基因**。

备注：待测细胞系与收录于 ATCC, DSMZ, JCRB 和 RIKEN 数据库的细胞系 STR 数据进行比对，未收录于以上细胞库的细胞系将无法匹配。
| Loci   | 送检细胞 STR 信息 | 细胞库细胞 STR 信息 |
|--------|------------------|---------------------|
|        | Allele1 | Allele2 | Allele3 | Allele1 | Allele2 | Allele3 |
| D5S818 | 12      | 12      |         | 12      | 12      |         |
| D13S317| 10      | 11      |         | 10      | 11      |         |
| D7S820 | 11      | 11      |         | 11      | 11      |         |
| D16S539| 10      | 10      |         | 10      | 10      |         |
| VWA    | 16      | 18      |         | 16      | 18      |         |
| TH01   | 7       | 7       |         | 7       | 7       |         |
| AMEL   | X       | Y       |         | X       | Y       |         |
| TPOX   | 8       | 11      |         | 8       | 11      |         |
| CSF1PO | 11      | 11      |         | 11      | 11      |         |
| D12S391| 20      | 21      |         |         |         |         |
| FGA    | 22      | 24      |         |         |         |         |
| D2S1338| 19      | 19      |         |         |         |         |
| D21S11 | 30      | 30      |         |         |         |         |
| D18S51 | 15      | 15      |         |         |         |         |
| D8S1179| 14      | 15      |         |         |         |         |
| D3S1358| 15      | 15      |         |         |         |         |
| D6S1043| 13      | 15      |         |         |         |         |
| PENTAE | 11      | 11      |         |         |         |         |
| D19S433| 13      | 14      |         |         |         |         |
| PENTAD | 12      | 12      |         |         |         |         |
| D1S1656| 16      | 16      |         |         |         |         |
其他说明

（一）分型方案及位点分布

| 方案 1 | 方案 2 | 方案 3 | 方案 4 |
|--------|--------|--------|--------|
| 1 | D3S1358 | D8S1179 | D19S433 | AMEL |
| 2 | VWA | D21S11 | TH01 | D1S1656 |
| 3 | D7S820 | D16S539 | D13S317 | D5S818 |
| 4 | CSF1PO | D2S1338 | TPOX | D12S391 |
| 5 | PENTAE | PENTAD | D18S51 | FGA |
| 6 | | | D6S1043 | |

实验方案及位点

（二）STR数据库比对

本公司采用DSMZ tools进行细胞系比对，其中包含来自于ATCC, DSMZ, JCRB和RIKEN数据库的2455个细胞系STR数据。如果待检测细胞未收录于以上细胞库或这是自行建立的新细胞系将无法进行比对，用户需根据细胞分型结果自行与其他数据库进行比对。
样品编号:

| 客户样本编号 | 公司编号 |
|--------------|----------|
| 293T         | 20220822-01 |

样品数量：1

样品性状：细胞系

检测项目：STR

送检单位：富衡
检测方法：用 Axygen 的基因组抽提试剂盒提取 DNA，采用 21- STR 扩增方案扩增，在 ABI 3730XL 型遗传分析仪上对 STR 位点和性别基因 Amelogenin 进行检测。

**检测结果**

(一) 检验基本情况

| 公司编号 | 多等位基因 | 匹配细胞系 | 细胞库 | EV 值 | 匹配说明 |
|----------|-------------|-------------|--------|-------|-----------|
| 20220822-01 | 无 | 293T | DSMZ | 1.0 | 完全匹配 |

样本基因型检验结果

- 多等位基因指三等位及以上基因现象。
- 本次检测各细胞分型结果良好。

(二) 各样本描述

- 20220822-01：该株细胞 DNA 分型在细胞系检索中找到完全匹配的细胞系，DSMZ 数据库显示细胞名为 293T，细胞号对应 635，本次检测在该细胞系中没有发现多等位基因。

备注：待测细胞系与收录于 ATCC, DSMZ, JCRB 和 RIKEN 数据库的细胞系 STR 数据进行比对，未收录于以上细胞库的细胞系将无法匹配。
### 三. 样本分型结果

#### 细胞的 STR 位点和 Amelogenin 位点的基因分型结果

| Loci   | 送检细胞 STR 信息 | 细胞库细胞 STR 信息 |
|--------|------------------|---------------------|
|        | Allele1 | Allele2 | Allele3 | Allele1 | Allele2 | Allele3 |
| D5S818 | 8       | 9       |         | 8       | 9       |         |
| D13S317| 12      | 14      |         | 12      | 14      |         |
| D7S820 | 11      | 11      |         | 11      | 11      |         |
| D16S539| 9       | 13      |         | 9       | 13      |         |
| VWA    | 16      | 19      |         | 16      | 19      |         |
| TH01   | 7       | 9.3     |         | 7       | 9.3     |         |
| AMEL   | X       | X       |         | X       | X       |         |
| TPOX   | 11      | 11      |         | 11      | 11      |         |
| CSF1PO | 11      | 12      |         | 11      | 12      |         |
| D12S391| 19      | 21      |         |         |         |         |
| FGA    | 23      |         |         | 23      |         |         |
| D2S1338| 19      |         |         | 19      |         |         |
| D21S11 | 28      |         | 30.2    |         | 30.2    |         |
| D18S51 | 17      |         | 18      |         | 18      |         |
| D8S1179| 12      |         | 14      |         | 14      |         |
| D3S1358| 15      |         | 17      |         | 17      |         |
| D6S1043| 11      |         | 11      |         | 11      |         |
| PENTAE | 7       |         | 15      |         | 15      |         |
| D19S433| 18.2    |         | 18.2    |         | 18.2    |         |
| PENTAD | 9       |         | 10      |         | 10      |         |
| D1S1656| 15      |         | 17.3    |         | 17.3    |         |
其他说明

（一）分型方案及位点分布

| 方案 1 | 方案 2 | 方案 3 | 方案 4 |
|--------|--------|--------|--------|
| 1      | D3S1358| D8S1179| D19S433| AMEL   |
| 2      | VWA    | D21S11 | TH01   | D1S1656|
| 3      | D7S820 | D16S539| D13S317| D5S818 |
| 4      | CSF1PO | D2S1338| TPOX   | D12S391|
| 5      | PENTAE | PENTAD | D18S51 | FGA    |
| 6      |        |        | D6S1043|        |

实验方案及位置

（二）STR 数据库比对

本公司采用 DSMZ tools 进行细胞系比对，其中包括来自于 ATCC, DSMZ, JCRB 和 RIKEN 数据库的 2455 个细胞系 STR 数据。如果待检测细胞未收录于以上细胞库或这是自行建立的新细胞系将无法进行比对，用户需根据细胞分型结果自行与其他数据库进行比对。

签发日期：2022-08-25
细胞种属鉴定

一、 实验样本和仪器试剂

1. 实验样本

用于检测的细胞样品需进行 2-5 天细胞培养。细胞量宜到 5-10×10^6。培养好后需离心提取细胞基因组 DNA，再进行 PCR 反应。

2. 主要仪器与试剂

| 仪器名称       | 品牌                      | 型号       |
|-----------------|---------------------------|------------|
| 超净工作台      | 苏州集团安泰空气技术有限公司 | BBS-SDC    |
| 移液器          | Eppendorf                 | ——         |
| 反渗透超纯水机  | 科尔顿                    | Smart-DUVF |
| 离心机          | 湖南湘仪实验室仪器开发有限公司 | H1650-W   |
| PCR 仪          | 北京东林昌盛科技有限公司 | DL9700     |
| 琼脂糖凝胶电泳装置 | 北京六一生物科技有限公司 | DYY-7C     |
| 凝胶成像系统    | 天能生物                  | Tanon 1600 |
| 旋涡振荡器      | 常州中诚                  | DHZ-C      |

| 试剂名称       | 品牌  | 货号       |
|-----------------|------|------------|
| TAE 缓冲液      | 自制 | ——         |
| 金牌 Mix        | 擎科 | TSE101     |
| 动物基因组 DNA 提取试剂盒 | 擎科 | TSP201     |
| PCR 管          | 贝博生物 | NEST403002 |

二、 方法

1. 细胞样品预处理

a. 收集悬浮细胞:

计算细胞数目，吸取所需体积细胞培养液，1800 rpm 离心 2 min，小心将上清完全吸弃，切勿吸走细胞沉淀。

b. 收集贴壁细胞:

胰蛋白酶消化：计算细胞数目，吸净细胞培养液，用 PBS 缓冲液洗涤细胞 1
次，加入终浓度为0.1~0.25%的胰蛋白酶（自备），当细胞从培养瓶上脱落后收集所需体积细胞，1800 rpm离心2 min，小心将上清完全吸弃，切勿吸走细胞沉淀。

2. 细胞种属鉴定引物

- mouse-F: ATTACAGCCGTACTGCTCCTAT
- mouse-R: CCCAAAGAATCAGAACAGATGC
- rat-F: CTCCGACGCAGACAAAATCCC
- rat-R: GATTTGGGTGATTGGGCGGAATG
- Human-F: GTGGGCTGAAAAGCTCCCGATTAT
- Human-R: GTGATTCCCATTGGCCTGTTCCTC

3. 实验步骤

a. 细胞基因组提取:

(1) 加入 200 ul 高纯水悬浮细胞沉淀；
(2) 加入 20 ul Proteinase K 至含有样品的离心管中，涡旋振荡 10 s；
(3) 加入 200 ul Buffer gA1，涡旋振荡 10 s，56℃孵育 0.5~1 h，期间震荡 3~5 次。
(4) 孵育结束后加入 200 ul 无水乙醇，涡旋振荡混匀。
(5) 将步骤 4 所得溶液全部转入 Spin Column 中，12000 rpm 离心 1 min，弃废液；
(6) 向 Spin Column 中加入 500 ul Buffer PW，12000 rpm 离心 30 s，弃废液；
(7) 步骤 6 一次；
(8) 向 Spin Column 中加入 500 ul Wash Buffer，12000 rpm 离心 30 s，弃废液；
(9) 将 Spin Column 放回 Collection Tube 中，12000 rpm 离心 2 min，开盖晾干 1 min；
(10) 取出 Spin Column，放入一个干净的 1.5 ml 离心管中，在吸附膜的中央处加 50~100 ul TE Buffer，室温放置 2 min；
(11) 12000 rpm 离心 2 min。将洗脱的溶液放入 4℃冰箱备用。

b. PCR反应:

(1) 将合成的引物稀释成终浓度为 100 nmol/L 的储藏液与 10 nmol/L 的工作
液。

（2）按以下组份配制 PCR 预混液：

| 试剂     | 用量 |
|----------|------|
| 金牌 Mix | 22ul |
| F Primer | 1ul  |
| R Primer | 1ul  |

（3）向以上反应混合液中加入 1 ul 检测样品，使总体积达到 25ul。添加样本时应防止交叉污染（注：将提取的细胞基因组浓度稀释到 100ng/ul 左右）。

（4）把反应管放入 PCR 仪中，设定以下条件，进行 PCR 反应：

| 循环数 | Step | 温度 | 时间 | 说明     |
|--------|------|------|------|----------|
| 1      | 1    | 98℃  | 2min | 起始模板变性 |
| 1      | 2    | 98℃  | 10s  | 模板变性   |
| 35     | 2    | TM   | 30s  | 退火       |
| 3      | 3    | 72℃  | 8s   | 延伸       |

（5）预先配置好 1~1.5%的琼脂糖胶，将完成的 PCR 反应液依次加入到胶孔中并选择合适的 Marker 进行琼脂糖凝胶电泳。

三、实验结果和数据

实验跑胶图如下：

![实验结果图]

实验结果分析如下：

样本 H22 鉴定为小鼠源。
KVβ (F-7): sc-377099

BACKGROUND

Voltage-gated K+ channels in the plasma membrane control the repolarization and the frequency of action potentials in neurons, muscles and other excitable cells. The KV gene family encodes more than 30 proteins that comprise the subunits of the K+ channels, and they vary in their gating and permeation properties, subcellular distribution and expression patterns. Functional KV channels assemble as tetramers consisting of pore-forming α subunits (KV), which include the KV1, KV2, KV3 and KV4 proteins, and accessory or KV-subunits that modify the gating properties of the coexpressed KV subunits. KVβ, also known as KCNAB1 (potassium voltage-gated channel, shaker-related subfamily, β member 1), is a 419 amino acid accessory K+ channel protein that exists as three alternatively spliced isoforms and regulates the activity of the pore-forming α subunit. It is expressed in brain, with highest levels detected in caudate nucleus, hippocampus and thalamus.

REFERENCES

1. Majumder, K., et al. 1995. Molecular cloning and functional expression of a novel potassium channel β subunit from human atrium. FEBS Lett. 361: 13-16.
2. Morales, M.J., et al. 1995. A novel β subunit increase potassium channel a subunits. J. Biol. Chem. 270: 6272-6277.
3. England, S.K., et al. 1995. Characterization of a voltage-gated K+ channel β subunit expressed in human heart. Proc. Natl. Acad. Sci. USA 92: 6309-6313.
4. McCormack, K., et al. 1995. Alternative splicing of the human expression of the β 2 gene product. FEBS Lett. 370: 32-36.
5. England, S.K., et al. 1995. A novel K+ channel β-subunit (hKVβ 1.3) is produced via alternative mRNA splicing. J. Biol. Chem. 270: 28531-28534.

CHROMOSOMAL LOCATION

Genetic locus: KCNAB1 (human) mapping to 3q25.31, KCNAB2 (human) mapping to 1p36.31; Kcnab1 (mouse) mapping to 4 E2.

SOURCE

KVβ (F-7) is a mouse monoclonal antibody against amino acids 120-419 mapping at the C-terminus of KVβ.1 of human origin.

PRODUCT

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KVβ (F-7) is available conjugated to agarose (sc-377099 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377099 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377099 PE), fluorescein (sc-377099 FITC), Alexa Fluor® 488 (sc-377099 AF488), Alexa Fluor® 546 (sc-377099 AF546), Alexa Fluor® 594 (sc-377099 AF594) or Alexa Fluor® 647 (sc-377099 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377099 AF680) or Alexa Fluor® 790 (sc-377099 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KVβ (F-7) is recommended for detection of KVβ.1 and KVβ.2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross react with KVβ.3.

KVβ (F-7) is also recommended for detection of KVβ.1 and KVβ.2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of KVβ: 47 kDa.

Positive Controls: mouse cerebellum extract: sc-2403, human brain tissue extract or mouse brain extract: sc-2293.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz™ Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz™ Mounting Medium: sc-24941 or UltraCruz™ Hard-set Mounting Medium: sc-359850.

DATA

<image of data>

KVβ (F-7) sc-377099. Western blot analysis of KVβ expression in mouse brain (A), human brain (B), mouse spinal cord (C), mouse cerebellum (D), rat hippocampus (E) and human cerebellum (F) tissue extracts.

KVβ (F-7) sc-377099. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (B).

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.
BACKGROUND
Chromosome 7 is about 158 million bases long, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia. The C7orf31 gene product has been provisionally designated C7orf31 pending further characterization.

REFERENCES
1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
3. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. Nature 424: 157-164.
4. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence in situ hybridization. Methods Mol. Med. 126: 113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.

CHROMOSOMAL LOCATION
Genetic locus: C7orf31 (human) mapping to 7p15.3.

SOURCE
C7orf31 (F-7) is a mouse monoclonal antibody raised against amino acids 217-508 mapping within an internal region of C7orf31 of human origin.

PRODUCT
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.
C7orf31 (F-7) is available conjugated to agarose (sc-515544AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515544 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-515544 PE), fluorescein (sc-515544 FITC), Alexa Fluor® 488 (sc-515544 AF488), Alexa Fluor® 546 (sc-515544 AF546), Alexa Fluor® 594 (sc-515544 AF594) or Alexa Fluor® 647 (sc-515544 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-515544 AF680) or Alexa Fluor® 790 (sc-515544 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS
C7orf31 (F-7) is recommended for detection of C7orf31 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

Suitable for use as control antibody for C7orf31 siRNA (h): sc-89748, C7orf31 shRNA Plasmid (h): sc-89748-SH and C7orf31 shRNA (h) Lentiviral Particles: sc-89748-V.

Molecular Weight of C7orf31: 68 kDa.

Positive Controls: RPMI2650 whole cell lysate: sc-364192 or human testis extract: sc-363781.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:100-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

STORAGE
Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

PROTOCOLS
See our website at www.scbt.com for detailed protocols and support products.
### ZFP91 Polyclonal Antibody

| **Catalog No** : | YT5823 |
|------------------|--------|
| **Reactivity** : | Human;Mouse;Rat |
| **Applications** : | WB;ELISA |
| **Gene Name** : | ZFP91 ZNF757 FKSG11 |
| **Protein Name** : | zinc finger protein 91 homolog (mouse); ZFP91-CNTF readthrough transcript; ciliary neurotrophic factor |
| **Human Gene Id** : | 80829 |
| **Human Swiss Prot No** : | Q96JP5 |
| **Mouse Gene Id** : | 109910 |
| **Mouse Swiss Prot No** : | Q62511 |
| **Immunogen** : | The antiserum was produced against synthesized peptide derived from the Internal region of human ZFP91. AA range:401-450 |
| **Specificity** : | The antibody detects endogenous ZFP91 protein |
| **Formulation** : | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source** : | Polyclonal, Rabbit,IgG |
| **Dilution** : | WB 1:500-2000, ELISA 1:10000-20000 |
| **Purification** : | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Concentration** : | 1 mg/ml |
| **Storage Stability** : | -20°C/1 year |
| **Molecular weight** : | 59571 |
**Observed Band:** 60

**Cell Pathway:** Cytokine-cytokine receptor interaction;Jak_STAT;

**Background:** The protein encoded by this gene is a member of the zinc finger family of proteins. The gene product contains C2H2-type domains, which are the classical zinc finger domains found in numerous nucleic acid-binding proteins. This protein functions as a regulator of the non-canonical NF-kappaB pathway in lymphotoxin-beta receptor signaling. Alternative splicing results in multiple transcript variants. A read-through transcript variant composed of ZFP91 and the downstream CNTF gene sequence has been identified, but it is thought to be non-coding. Read-through transcription of ZFP91 and CNTF has also been observed in mouse. A ZFP91-related pseudogene has also been identified on chromosome 2. [provided by RefSeq, Oct 2010].

**Function:**
- disease: Overexpressed in most acute myelogenous leukemia (AML) cases (27 over 29).
- function: CNTF is a survival factor for various neuronal cell types. Seems to prevent the degeneration of motor axons after axotomy.
- function: May be involved in transcriptional regulation. May play an important role in cell proliferation and/or anti-apoptosis.
- online information: Ciliary neurotrophic factor entry,
- similarity: Belongs to the CNTF family,
- similarity: Belongs to the krueppel C2H2-type zinc-finger protein family,
- similarity: Contains 5 C2H2-type zinc fingers,
- subunit: Homodimer,
- tissue specificity: Expressed ubiquitously, particularly at high level in testis. Isoform 2 is testis specific,
- tissue specificity: Nervous system.

**Subcellular Location:** Nucleus.

**Expression:** Expressed ubiquitously, particularly at high level in testis. Isoform 2 is testis specific.

**No4:** 1
Western Blot analysis of hepg2, NT28 cells using Antibody diluted at 500. Secondary antibody (catalog#: RS0002) was diluted at 1:20000
# Anti-ZFP91 Antibody [D5-C3]

**EM1708-31**

| **Product Type:** | Mouse monoclonal IgG1, primary antibodies |
|------------------|------------------------------------------|
| **Species reactivity:** | Human |
| **Applications:** | WB, ICC, IHC-P, FC |
| **Molecular Wt:** | 63 kDa |
| **Clone number:** | D5-C3 |

**Description:**
The protein encoded by ZFP91 is a member of the zinc finger family of proteins. This protein contains C2H2 type domains, which are the classical zinc finger domains found in numerous nucleic acid-binding proteins. Atypical E3 ubiquitin-protein ligase that mediates 'Lys-63'-linked ubiquitination of MAP3K14/NIK, leading to stabilize and activate MAP3K14/NIK. It thereby acts as an activator of the non-canonical NF-kappa-B2/NFKB2 pathway. May also play an important role in cell proliferation and/or anti-apoptosis.

**Immunogen:**
Recombinant protein

**Positive control:**
Human ZFP91 recombinant protein, ZFP91-hlgGFc transfected HEK293 cell lysate, Jurkat, A431, HepG2, HEK293, A549, PC-3, Hela, human ovarian cancer, human ?rectum cancer.

**Subcellular location:**
Nucleus.

**Database links:**
SwissProt: Q96JP5 Human

**Recommended Dilutions:**

| **Method** | **Dilution** |
|------------|-------------|
| WB         | 1:500-1:2,000 |
| ICC        | 1:100-1:200 |
| IHC-P      | 1:100-1:500 |
| FC         | 1:50-1:200 |

**Storage Buffer:**
Purified antibody in PBS with 0.05% sodium azide.

**Storage Instruction:**
4°C; -20°C for long term storage.

**Purity:**
Protein A affinity purified.
**Fig 1:** Western blot analysis of ZFP91 on human ZFP91 recombinant protein using anti-ZFP91 antibody at 1/1,000 dilution.

**Fig 2:** Western blot analysis of ZFP91 on HEK293 (1) and ZFP91-hlgGFc transfected HEK293 (2) cell lysate using anti-ZFP91 antibody at 1/1,000 dilution.

**Fig 3:** Western blot analysis of ZFP91 on different cell lysate using anti-ZFP91 antibody at 1/1,000 dilution.

**Positive control:**
- Lane 1: Jurkat
- Lane 2: A431
- Lane 3: HepG2
- Lane 4: HEK293
- Lane 5: A549
- Lane 6: PC-3

**Fig 4:** ICC staining ZFP91 (green) and Actin filaments (red) in Hela cells. The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
1. Dyachok J et al. Amino Acids Regulate mTORC1 by an Obligate Two-step Mechanism. J Biol Chem 291:22414-22426 (2016).

2. Jung J et al. Amino Acid-Dependent mTORC1 Regulation by the Lysosomal Membrane Protein SLC38A9. Mol Cell Biol 35:2479-94 (2015).

**Fig5:** Immunohistochemical analysis of paraffin-embedded human ovarian cancer tissue using anti-ZFP91 antibody. Counter stained with hematoxylin.

**Fig6:** Immunohistochemical analysis of paraffin-embedded human rectum cancer tissue using anti-ZFP91 antibody. Counter stained with hematoxylin.

**Fig7:** Flow cytometric analysis of Hela cells with ZFP91 antibody at 1/100 dilution (green) compared with an unlabelled control (cells without incubation with primary antibody; red).

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

**Background References**

1. Dyachok J et al. Amino Acids Regulate mTORC1 by an Obligate Two-step Mechanism. J Biol Chem 291:22414-22426 (2016).

2. Jung J et al. Amino Acid-Dependent mTORC1 Regulation by the Lysosomal Membrane Protein SLC38A9. Mol Cell Biol 35:2479-94 (2015).