

# CELF5 (V-13): sc-138199

## BACKGROUND

The CELF (CUG-BP- and ETR-3-like factor) protein family consists of six RNA-binding proteins that are involved in editing and translating mRNA while regulating alternative splicing of pre-mRNA. CELF family members contain 2 adjacent N-terminal RRM (RNA recognition motif) domains and one C-terminal RRM domain, which are connected by an amino acid linker region of more than 160 amino acids. CELF5 (CUG-BP- and ETR-3-like factor 5), also known as Bruno-like protein 5 or BRUNOL5, is a 485 amino acid RNA-binding protein belonging to the CELF family. Localizing to nucleus and cytoplasm, CELF5 is involved in regulating alternative splicing of pre-mRNA and binds muscle-specific splicing enhancer (MSE) intronic sites near exon 5 of TNNT2 pre-mRNA. CELF5 is expressed in all regions of fetal and adult brain with little expression elsewhere. Two CELF5 isoforms are produced as a result of alternative splicing, and the gene encoding CELF5 maps to human chromosome 19p13.3.

## REFERENCES

1. Good, P.J., et al. 2000. A family of human RNA-binding proteins related to the *Drosophila* Bruno translational regulator. *J. Biol. Chem.* 275: 28583-28592.
2. Ladd, A.N., et al. 2001. The CELF family of RNA binding proteins is implicated in cell-specific and developmentally regulated alternative splicing. *Mol. Cell. Biol.* 21: 1285-1296.
3. Ladd, A.N., et al. 2004. CELF6, a member of the CELF family of RNA-binding proteins, regulates muscle-specific splicing enhancer-dependent alternative splicing. *J. Biol. Chem.* 279: 17756-17764.
4. Singh, G., et al. 2004. ETR-3 and CELF4 protein domains required for RNA binding and splicing activity *in vivo*. *Nucleic Acids Res.* 32: 1232-1241.
5. Han, J., et al. 2005. Identification of CELF splicing activation and repression domains *in vivo*. *Nucleic Acids Res.* 33: 2769-2780.
6. Barreau, C., et al. 2006. Mammalian CELF/Bruno-like RNA-binding proteins: molecular characteristics and biological functions. *Biochimie* 88: 515-525.
7. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612680. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: CELF5 (human) mapping to 19p13.3; Celf5 (mouse) mapping to 10 C1.

## SOURCE

CELF5 (V-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CELF5 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138199 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CELF5 (V-13) is recommended for detection of CELF5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with CELF3 or CELF6.

CELF5 (V-13) is also recommended for detection of CELF5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CELF5 siRNA (h): sc-97170, CELF5 siRNA (m): sc-141757, CELF5 shRNA Plasmid (h): sc-97170-SH, CELF5 shRNA Plasmid (m): sc-141757-SH, CELF5 shRNA (h) Lentiviral Particles: sc-97170-V and CELF5 shRNA (m) Lentiviral Particles: sc-141757-V.

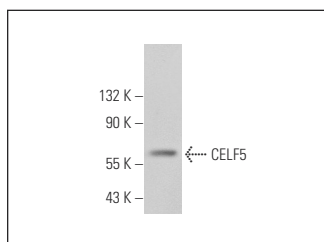
Molecular Weight of CELF5: 52 kDa.

Positive Controls: SH-SY5Y nuclear extract: sc-364820.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



CELF5 (V-13): sc-138199. Western blot analysis of CELF5 expression in SH-SY5Y nuclear extract.

## RESEARCH USE

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