

# Neutralized-2 (A-11): sc-398195

## BACKGROUND

Neutralized-2, also known as NEURL2, OZZ or Ozz-E3, is a 285 amino acid cytoplasmic protein involved in myofiber differentiation and maturation that is induced during differentiation. Expressed predominantly in skeletal and cardiac muscle, Neutralized-2 localizes to the tips of differentiating myofibers and regulates ubiquitination and degradation of  $\beta$ -catenin at the sarcolemma. Neutralized-2 contains one SOCS box domain, through which it interacts with Elongin B and Elongin C, and one NHR (neutralized homology repeat) domain that is implicated in ubiquitination substrate binding. The gene encoding Neutralized-2 maps to human chromosome 20, which is comprised of approximately 2% of the human genome, contains nearly 63 million bases and encodes over 600 genes. Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis and Alagille syndrome are associated with chromosome 20.

## REFERENCES

1. Mead, S., et al. 2000. Examination of the human prion protein-like gene doppel for genetic susceptibility to sporadic and variant Creutzfeldt-Jakob disease. *Neurosci. Lett.* 290: 117-120.
2. Nastasi, T., et al. 2004. Ozz-E3, a muscle-specific ubiquitin ligase, regulates  $\beta$ -catenin degradation during myogenesis. *Dev. Cell* 6: 269-282.
3. Nishimura, A.L., et al. 2004. A novel locus for late onset amyotrophic lateral sclerosis/motor neurone disease variant at 20q13. *J. Med. Genet.* 41: 315-320.
4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 608597. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Song, R., et al. 2006. Neutralized-2 regulates a Notch ligand in cooperation with Mind bomb-1. *J. Biol. Chem.* 281: 36391-36400.
6. Robert, M.L., et al. 2007. Alagille syndrome with deletion 20p12.2-p12.3 and hypoplastic left heart. *Clin. Dysmorphol.* 16: 241-246.
7. Aurino, S., et al. 2008. Candidate-gene testing for orphan limb-girdle muscular dystrophies. *Acta Myol.* 27: 90-97.

## CHROMOSOMAL LOCATION

Genetic locus: NEURL2 (human) mapping to 20q13.12; Neurl2 (mouse) mapping to 2 H3.

## SOURCE

Neutralized-2 (A-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 7-20 within a cytoplasmic domain of Neutralized-2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398195 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Neutralized-2 (A-11) is recommended for detection of Neutralized-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for Neutralized-2 siRNA (h): sc-75905, Neutralized-2 siRNA (m): sc-149925, Neutralized-2 shRNA Plasmid (h): sc-75905-SH, Neutralized-2 shRNA Plasmid (m): sc-149925-SH, Neutralized-2 shRNA (h) Lentiviral Particles: sc-75905-V and Neutralized-2 shRNA (m) Lentiviral Particles: sc-149925-V.

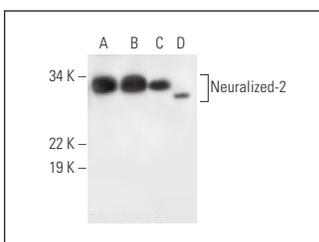
Molecular Weight of Neutralized-2: 31 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HL-60 whole cell lysate: sc-2209.

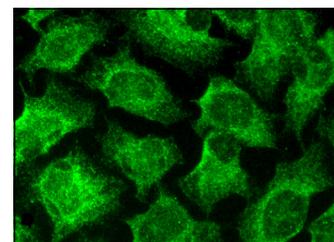
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



Neutralized-2 (A-11): sc-398195. Western blot analysis of Neutralized-2 expression in Jurkat (A), K-562 (B) and HL-60 (C) whole cell lysates and human heart tissue extract (D).



Neutralized-2 (A-11): sc-398195. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.