**BACKGROUND**

Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease characterized by progressive limb or bulbar weakness. Mutations in the ALS2 gene result in a number of juvenile recessive motor neuron diseases (MNDs), including juvenile primary lateral sclerosis (JPLS), infantile ascending hereditary spastic paraplegia (CHSP). The ALS2 gene encodes the Alsin protein, which acts as a guanine nucleotide exchange factor for Rab5, a modulator of the endocytic pathway. Alsin is a cytosolic protein that is associated with small, punctate membrane structures, suggesting Alsin may mediate membrane transport events, potentially linking endocytic processes and actin cytoskeleton remodeling. ALS2CR4 (amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 4) is a 432 amino acid multi-pass membrane protein highly enriched in retina and localizes to photoreceptor outer segments, ciliary complex and postsynaptic outer plexiform layer. Encoded by a gene that maps to human chromosome 2q33.1, ALS2CR4 exists as two alternatively spliced isoforms.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TMEM237 (human) mapping to 2q33.1; Tmem237 (mouse) mapping to 1C1.3.

**SOURCE**

ALS2CR4 (G-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 205-226 within an internal region of ALS2CR4 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG; 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-514651 P (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

ALS2CR4 (G-8) is recommended for detection of ALS2CR4 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).


Molecular Weight of ALS2CR4: 48 kDa.

Positive Controls: HT-1080 whole cell lysate: sc-364183, human ovary extract: sc-363769 or human brain tissue extract.

**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, 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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**

**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.