**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 onset ascending hereditary spastic paralysis (IAHSP) and a form of complicated 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. Therefore, Alsin may mediate membrane transport events, potentially linking endocytic processes and actin cytoskeleton remodeling. ALS2CR7 (amyotrophic lateral sclerosis 2 chromosomal region candidate gene 7 protein), also known as PFTK2, is a 384 amino acid protein belonging to the protein kinase superfamily. ALS2CR7 catalyzes the ATP-dependent phosphorylation of target proteins, thereby influencing signaling events throughout the cell. ALS2CR7 exists as three isoforms due to alternative splicing events.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PFTK2 (human) mapping to 2q33.1; Pftk2 (mouse) mapping to 1 C1.3.

**SOURCE**

ALS2CR7 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ALS2CR7 of human origin.

**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-103392 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

ALS2CR7 (P-15) is recommended for detection of ALS2CR7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 other ALS2CR family members.

Suitable for use as control antibody for ALS2CR7 siRNA (h): sc-105057, ALS2CR7 siRNA (m): sc-105058, ALS2CR7 shRNA Plasmid (h): sc-105057-SH, ALS2CR7 shRNA Plasmid (m): sc-105058-SH, ALS2CR7 shRNA (h) Lentiviral Particles: sc-105057-V and ALS2CR7 shRNA (m) Lentiviral Particles: sc-105058-V.

Molecular Weight of ALS2CR7: 44 kDa.

**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: 1:2000-1:10000), Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2783 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**PROTOCOLS**

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