**BACKGROUND**

C9orf72 is a 481 amino acid cytoplasmic and nuclear protein that exists as 2 alternatively spliced isoforms. Both isoforms of C9orf72 are widely expressed, including expression in kidney, lung, liver, heart, testis, cerebellum and frontal cortex. Defects in C9orf72 are the cause of frontotemporal dementia and/or amyotrophic lateral sclerosis (FTDALS), an autosomal dominant neurodegenerative disorder characterized by adult onset of frontotemporal dementia and/or amyotrophic lateral sclerosis. Frontotemporal dementia is characterized by frontal and temporal lobe atrophy associated with neuronal loss, gliosis and dementia, while amyotrophic lateral sclerosis is characterized by the death of motor neurons in the brain, brainstem and spinal cord, resulting in fatal paralysis.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: C9orf72 (human) mapping to 9p21.2; 3110043O21Rik (mouse) mapping to 4A5.

**SOURCE**

C9orf72 (S-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of C9orf72 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138763 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**STORAGE**

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

**APPLICATIONS**

C9orf72 (S-14) is recommended for detection of C9orf72 of human origin, 3110043O21Rik of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300); non cross-reactive with other C9orf family members.

C9orf72 (S-14) is also recommended for detection of C9orf72 in additional species, including equine, canine and avian.

Suitable for use as control antibody for C9orf72 siRNA (h): sc-92761, 3110043O21Rik siRNA (m): sc-108907, C9orf72 shRNA Plasmid (h): sc-92761-SH, 3110043O21Rik shRNA Plasmid (m): sc-108907-SH, C9orf72 shRNA (h) Lentiviral Particles: sc-92761-V and 3110043O21Rik shRNA (m) Lentiviral Particles: sc-108907-V.

Molecular Weight of C9orf72 isoforms: 54/25 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2035 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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