

CD2BP2 (T-17): sc-70238

BACKGROUND

CD2BP2 (CD2 (cytoplasmic tail) binding protein 2), also known as LIN1, Snu40, FWP010 or U5-52K, is a 341 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one GYF domain. Expressed in a variety of tissues, CD2BP2 exists as a bi-functional protein that, in the nucleus, is a component of the U5 small nuclear ribonucleoprotein complex and, in the cytoplasm, binds to the tail of the CD2 antigen. Via its multifunctional activity, CD2BP2 participates in RNA splicing and regulates CD2-triggered T-lymphocyte activation. The gene encoding CD2BP2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

1. Nishizawa, K., et al. 1998. Identification of a proline-binding motif regulating CD2-triggered T lymphocyte activation. *Proc. Natl. Acad. Sci. USA* 95: 14897-14902.
2. Kofler, M., et al. 2005. Novel interaction partners of the CD2BP2-GYF domain. *J. Biol. Chem.* 280: 33397-33402.
3. Kofler, M., et al. 2005. GYF domain proteomics reveals interaction sites in known and novel target proteins. *Mol. Cell. Proteomics* 4: 1797-1811.
4. Lagerbauer, B., et al. 2005. The human U5 snRNP 52K protein (CD2BP2) interacts with U5-102K (hPRP6), a U4/U6.U5 tri-snRNP bridging protein, but dissociates upon tri-snRNP formation. *RNA* 11: 598-608.
5. Kofler, M.M. and Freund, C. 2006. The GYF domain. *FEBS J.* 273: 245-256.
6. Monos, D., et al. 2006. Analysis of the CD2 and spliceosomal Sm B/B' poly-proline-arginine motifs defined by a monoclonal antibody using a phage-displayed random peptide library. *J. Mol. Recognit.* 19: 535-541.
7. Heinze, M., et al. 2007. Investigating the functional role of CD2BP2 in T cells. *Int. Immunol.* 19: 1313-1318.

CHROMOSOMAL LOCATION

Genetic locus: CD2BP2 (human) mapping to 16p11.2; Cd2bp2 (mouse) mapping to 7 F3.

SOURCE

CD2BP2 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD2BP2 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-70238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD2BP2 (T-17) is recommended for detection of CD2BP2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD2BP2 (T-17) is also recommended for detection of CD2BP2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CD2BP2 siRNA (h): sc-72826, CD2BP2 siRNA (m): sc-72827, CD2BP2 shRNA Plasmid (h): sc-72826-SH, CD2BP2 shRNA Plasmid (m): sc-72827-SH, CD2BP2 shRNA (h) Lentiviral Particles: sc-72826-V and CD2BP2 shRNA (m) Lentiviral Particles: sc-72827-V.

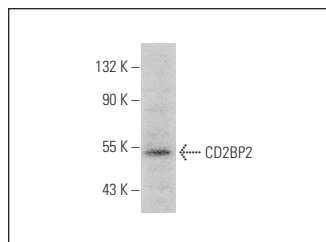
Molecular Weight of CD2BP2: 52 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138.

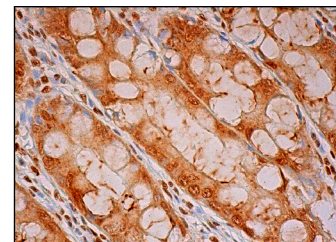
RECOMMENDED SECONDARY REAGENTS

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™ 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) 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CD2BP2 (T-17): sc-70238. Western blot analysis of CD2BP2 expression in NIH/3T3 nuclear extract.



CD2BP2 (T-17): sc-70238. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells and nuclear staining of interstitial cells.

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.