

# C14orf138 (Y-18): sc-245250

## BACKGROUND

C14orf138 (chromosome 14 open reading frame 138) is a 229 amino acid protein that exists as 4 alternatively spliced isoforms. The gene encoding C14orf138 maps to human chromosome 14q21.3. Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: METTL21D (human) mapping to 14q21.3; Mettl21d (mouse) mapping to 12 C2.

## SOURCE

C14orf138 (Y-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C14orf138 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-245250 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

C14orf138 (Y-18) is recommended for detection of C14orf138 of human origin, Gm71 of mouse origin and the corresponding rat homolog 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).

C14orf138 (Y-18) is also recommended for detection of C14orf138 in additional species, including canine.

Suitable for use as control antibody for C14orf138 siRNA (h): sc-92351, Gm71 siRNA (m): sc-145596, C14orf138 shRNA Plasmid (h): sc-92351-SH, Gm71 shRNA Plasmid (m): sc-145596-SH, C14orf138 shRNA (h) Lentiviral Particles: sc-92351-V and Gm71 shRNA (m) Lentiviral Particles: sc-145596-V.

Molecular Weight of C14orf138: 16 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: 1:2000-1:100,000) 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.