

Osgep (R-15): sc-160633

BACKGROUND

O-sialoglycoprotein endopeptidases cleave the polypeptide backbone of membrane glycoproteins that contain clusters of O-linked sialoglycans. Osgep (O-sialoglycoprotein endopeptidase), also known as GCPL1, is a 335 amino acid protein that is a member of the peptidase M22 family. Osgep specifically cleaves the 31-Arg-I-Asp-32 bond in glycoporphin A, but it does not cleave desialylated glycoproteins, unglycosylated proteins or glycoproteins that are only N-glycosylated. Though ubiquitously expressed at low levels, highest levels of Osgep are found in liver, skeletal muscle and kidney. The gene encoding Osgep maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the Presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OSGEP (human) mapping to 14q11.2; Osgep (mouse) mapping to 14 C1.

SOURCE

Osgep (R-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Osgep of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-160633 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Osgep (R-15) is recommended for detection of Osgep of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with OSGEPL1.

Osgep (R-15) is also recommended for detection of Osgep in additional species, including equine and bovine.

Suitable for use as control antibody for Osgep siRNA (h): sc-92142, Osgep siRNA (m): sc-151331, Osgep shRNA Plasmid (h): sc-92142-SH, Osgep shRNA Plasmid (m): sc-151331-SH, Osgep shRNA (h) Lentiviral Particles: sc-92142-V and Osgep shRNA (m) Lentiviral Particles: sc-151331-V

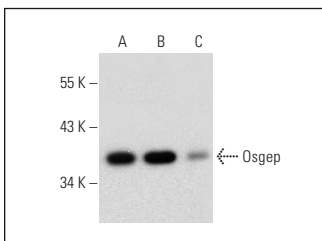
Molecular Weight of Osgep: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-BR-3 cell lysate: sc-2218 or mouse brain extract: sc-2253.

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.

DATA



Osgep (R-15): sc-160633. Western blot analysis of Osgep expression in HeLa (A) and SK-BR-3 (B) whole cell lysates and mouse brain tissue extract (C).

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.