SANTA CRUZ BIOTECHNOLOGY, INC.

Osgep (H-3): sc-393199

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 glycophorin 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 α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

1. Harrison, L., et al. 1997. Comparison of the promoters of the mouse (APEX) and human (APE) apurinic endonuclease genes. Mutat. Res. 385: 159-172.
2. Ikeda, S., et al. 2002. Identification of the functional elements in the bidirectional promoter of the mouse O-sialoglycoprotein endopeptidase and APEX nuclease genes. Biochem. Biophys. Res. Commun. 296: 785-791.
3. Seki, Y., et al. 2002. Sequencing analysis of a putative human O-sialoglycoprotein endopeptidase gene (Osgep) and analysis of a bidirectional promoter between the Osgep and APEX genes. Gene 285: 101-108.
4. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.

CHROMOSOMAL LOCATION

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

SOURCE

Osgep (H-3) is a mouse monoclonal antibody raised against amino acids 89-335 mapping at the C-terminus of Osgep of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Osgep (H-3) is available conjugated to agarose (sc-393199 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393199 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393199 PE), fluorescein (sc-393199 FITC), Alexa Fluor® 488 (sc-393199 AF488), Alexa Fluor® 546 (sc-393199 AF546), Alexa Fluor® 594 (sc-393199 AF594) or Alexa Fluor® 647 (sc-393199 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393199 AF680) or Alexa Fluor® 790 (sc-393199 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Osgep (H-3) is recommended for detection of Osgep of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

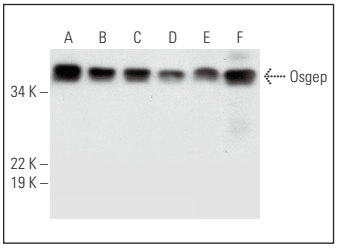
Molecular Weight of Osgep: 36 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

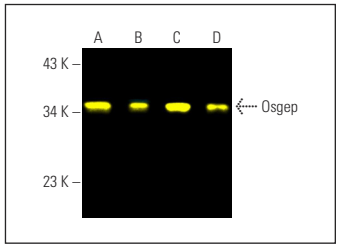
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Osgep (H-3): sc-393199. Western blot analysis of Osgep expression in Ramos (**A**), HeLa (**B**), SK-BR-3 (**C**), JAR (**D**) and PC-3 (**E**) whole cell lysates and mouse lymph node tissue extract (**F**).



Osgep (H-3) Alexa Fluor® 488: sc-393199 AF488. Direct fluorescent western blot analysis of Osgep expression in Ramos (**A**), HeLa (**B**), SK-BR-3 (**C**) and PC-3 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.

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 for detailed protocols and support products.