

ORP-3 (D-12): sc-398326



The Power to Question

BACKGROUND

ORP-3 (OSBP-related protein 3), also known as OSBPL3 (oxysterol binding protein-like 3) or OSBP3, is an 887 amino acid protein that contains one PH domain and is thought to be involved in Actin cytoskeletal control, as well as in cell polarity and cell adhesion. Belonging to the OSBP family, ORP-3 exists as eight alternatively spliced isoforms, designated 1α -1 δ and 2α -2 δ , all of which are expressed in colon, lung, spleen, brain, thyroid, bone marrow and skeletal muscle, but are not present in liver and heart tissue. The gene encoding ORP-3 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

CHROMOSOMAL LOCATION

Genetic locus: OSBPL3 (human) mapping to 7p15.3; Osbpl3 (mouse) mapping to 6 B2.3.

SOURCE

ORP-3 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 480-519 within an internal region of ORP-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398326 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ORP-3 (D-12) is recommended for detection of ORP-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ORP-3 siRNA (h): sc-89680, ORP-3 siRNA (m): sc-151320, ORP-3 shRNA Plasmid (h): sc-89680-SH, ORP-3 shRNA Plasmid (m): sc-151320-SH, ORP-3 shRNA (h) Lentiviral Particles: sc-89680-V and ORP-3 shRNA (m) Lentiviral Particles: sc-151320-V.

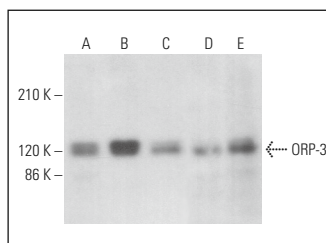
Molecular Weight of ORP-3 precursor: 103 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

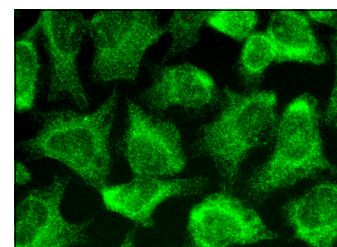
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



ORP-3 (D-12): sc-398326. Western blot analysis of ORP-3 expression in HeLa (A), NTERA-2 cl.D1 (B), Jurkat (C), BYDP (D) and MEG-01 (E) whole cell lysates.



ORP-3 (D-12): sc-398326. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

- Miyamoto, T., et al. 2020. Insufficiency of ciliary cholesterol in hereditary Zellweger syndrome. *EMBO J.* 39: e103499.
- Meessen, S., et al. 2022. A comparative assessment of replication stress markers in the context of telomerase. *Cancers* 14: 2205.
- Santos, M.F., et al. 2023. HIV-1-induced nuclear invaginations mediated by VAP-A, ORP3, and Rab7 complex explain infection of activated T cells. *Nat. Commun.* 14: 4588.
- Carbone, D., et al. 2024. Triazole derivatives inhibit the VOR complex-mediated nuclear transport of extracellular particles: potential application in cancer and HIV-1 infection. *Bioorg. Chem.* 150: 107589.

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.