

yrdC (E-10): sc-390477

BACKGROUND

yrdC (yrdC domain containing protein), also known as IRIP (ischemia/reperfusion-inducible protein homolog), SUA5 or DRIP3 (dopamine receptor-interacting protein 3), is a 279 amino acid ubiquitously expressed protein found at highest levels in brain, liver and pancreas. A member of the SUA5 family, yrdC is involved in certain aspects of transporter activity, such as the regulation of efflux transporter activity and cargo assembly. YrdC is a peripheral membrane protein that contains one yrdC-like domain, interacts with RSC1A1 and localizes to mitochondrial and plasma membranes. The gene encoding yrdC maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

- Lai, E., et al. 1989. Physical maps of the mouse and human immunoglobulin-like loci. *Adv. Immunol.* 46: 1-59.
- Lau, E.K., et al. 1999. Two novel polymorphic sequences in the glucocerebrosidase gene region enhance mutational screening and founder effect studies of patients with Gaucher disease. *Hum. Genet.* 104: 293-300.
- Chen, J., et al. 2003. Isolation and identification of a novel cDNA that encodes human yrdC protein. *J. Hum. Genet.* 48: 164-169.

CHROMOSOMAL LOCATION

Genetic locus: YRDC (human) mapping to 1p34.3; Yrdc (mouse) mapping to 4 D2.2.

SOURCE

yrdC (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 248-262 near the C-terminus of yrdC of human origin.

PRODUCT

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

yrdC (E-10) is available conjugated to agarose (sc-390477 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390477 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390477 PE), fluorescein (sc-390477 FITC), Alexa Fluor® 488 (sc-390477 AF488), Alexa Fluor® 546 (sc-390477 AF546), Alexa Fluor® 594 (sc-390477 AF594) or Alexa Fluor® 647 (sc-390477 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390477 AF680) or Alexa Fluor® 790 (sc-390477 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390477 P, (100 µg 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

yrdC (E-10) is recommended for detection of yrdC 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), 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).

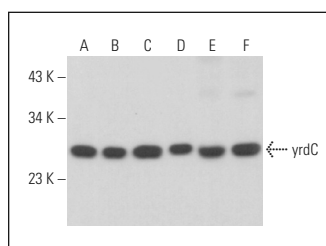
yrdC (E-10) is also recommended for detection of yrdC in additional species, including canine.

Suitable for use as control antibody for yrdC siRNA (h): sc-88267, yrdC siRNA (m): sc-155419, yrdC shRNA Plasmid (h): sc-88267-SH, yrdC shRNA Plasmid (m): sc-155419-SH, yrdC shRNA (h) Lentiviral Particles: sc-88267-V and yrdC shRNA (m) Lentiviral Particles: sc-155419-V.

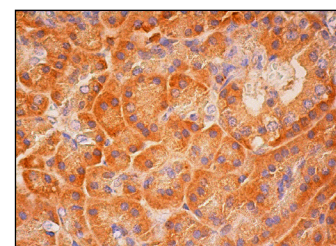
Molecular Weight of yrdC: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MIA PaCa-2 cell lysate: sc-2285 or HEK293 whole cell lysate: sc-45136.

DATA



yrdC (E-10): sc-390477. Western blot analysis of yrdC expression in MIA PaCa-2 (A), HeLa (B), HEK293 (C) and NIH/3T3 (D) whole cell lysates and mouse pancreas (E) and rat pancreas (F) tissue extracts.



yrdC (E-10): sc-390477. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells.

SELECT PRODUCT CITATIONS

- Huang, S., et al. 2019. Modulation of yrdC promotes hepatocellular carcinoma progression via MEK/ERK signaling pathway. *Biomed. Pharmacother.* 114: 108859.
- Guo, J., et al. 2021. yrdC mediates the resistance of lenvatinib in hepatocarcinoma cells via modulating the translation of KRAS. *Front. Pharmacol.* 12: 744578.
- Shi, B., et al. 2022. RNA structural dynamics modulate EGFR-TKI resistance through controlling yrdC translation in NSCLC cells. *Genomics Proteomics Bioinformatics.* E-published.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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