SANTA CRUZ BIOTECHNOLOGY, INC.

HTR3D (C-15): sc-102603

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Serotonin is a monoamine neurotransmitter that is made in serotonergic neurons in the CNS (central nervous system) and is important in the regulation of mood, sleep, vomiting, sexuality and appetite. 5-HT3 (5-hydroxytryptamine-3) receptor is the only ligand-gated ion channel within the family of serotonin receptors. It is composed of five subunits consisting of SR-3A, SR-3B, HTR3C, HTR3D and HTR3E. HTR3D (5-hydroxytryptamine receptor 3D), also known as Serotonin receptor 3D, is a 454 amino acid multi-pass membrane protein that is one component of the pentaheteromeric complex that forms the 5-HT3 receptor. HTR3D must be co-expressed with SR-3A to form a functional 5-HT3 receptor complex on the plasma membrane. Until it is complexed with SR-3A, HTR3D is localized within the endoplasmic reticulum. Expression of HTR3D is restricted to kidney, colon and liver. There are three different isoforms of HTR3D that are expressed as a result of alternative splicing events.

REFERENCES

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2. Peters, J.A., Kelley, S.P., Dunlop, J.I., Kirkness, E.F., Hales, T.G. and Lambert, J.J. 2004. The 5-hydroxytryptamine type 3 (5-HT3) receptor reveals a novel determinant of single-channel conductance. Biochem. Soc. Trans. 32: 547-552.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610122. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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5. Niesler, B., Kapeller, J., Hammer, C. and Rappold, G. 2008. Serotonin type 3 receptor genes: HTR3A, B, C, D, E. Pharmacogenomics 9: 501-504.
6. Barnes, N.M., Hales, T.G., Lummis, S.C. and Peters, J.A. 2009. The 5-HT3 receptor—the relationship between structure and function. Neuropharmacology 56: 273-284.

CHROMOSOMAL LOCATION

Genetic locus: HTR3D/HTR3E (human) mapping to 3q27.1.

SOURCE

HTR3D (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of HTR3D of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-102603 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

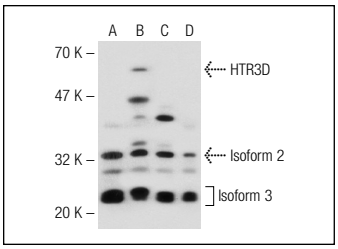
HTR3D (C-15) is recommended for detection of HTR3D and HTR3E of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with HTR3C.

Suitable for use as control antibody for HTR3D siRNA (h): sc-78056, HTR3D shRNA Plasmid (h): sc-78056-SH and HTR3D shRNA (h) Lentiviral Particles: sc-78056-V.

Molecular Weight of HTR3D: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caki-1 cell lysate: sc-2224 or HCT-8 cell lysate: sc-24675.

DATA



HTR3D (C-15): sc-102603. Western blot analysis of HTR3D expression in HCT-8 (**A**), Caki-1 (**B**), HEK293 (**C**) and Hep G2 (**D**) whole cell lysates.

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 or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **HTR3D (G-5): sc-515279**, our highly recommended monoclonal alternative to HTR3D (C-15).