SANTA CRUZ BIOTECHNOLOGY, INC.

TAAR9 (C-19): sc-55329

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Trace amines are endogenous molecules structurally related to classical biogenic amines that are linked to psychiatric conditions. TAAR9 belongs to a family of G protein-coupled receptors, referred to as trace-amine-associated receptors (TAAR), which are activated by trace amines and are present in very low levels in mammalian tissue. TAARs contain several structural features that are similar to the rhodopsin β-adrenergic receptor superfamily, including the positions of the seven transmembrane regions that provide common ligand-binding pockets as well as the short N- and C-terminal domains. TAAR proteins are potential targets for studying amine-containing drugs of abuse, such as amphetamines and MDMA, as well as neuropsychiatric disorders including schizophrenia, depression and attention deficit disorder.

REFERENCES

1. Wolowyna, J.E. 1978. Income and childlessness in Canada: a further examination. Soc. Biol. 24: 326-331.
2. Zeng, Z., Fan, P., Rand, E., Kyaw, H., Su, K., Madike, V., Carter, K.C. and Li, Y. 1998. Cloning of a putative human neurotransmitter receptor expressed in skeletal muscle and brain. Biochem. Biophys. Res. Commun. 242: 575-578.
3. Lee, D.K., Lynch, K.R., Nguyen, T., Im, D.S., Cheng, R., Saldivia, V.R., Liu, Y., Liu, I.S., Heng, H.H., Seeman, P., George, S.R., O'Dowd, B.F. and Marchese, A. 2000. Cloning and characterization of additional members of the G protein-coupled receptor family. Biochim. Biophys. Acta 1490: 311-323.
4. Lee, S.P., O'Dowd, B.F., Ng, G.Y., Varghese, G., Akil, H., Mansour, A., Nguyen, T. and George, S.R. 2000. Inhibition of cell surface expression by mutant receptors demonstrates that D2 dopamine receptors exist as oligomers in the cell. Mol. Pharmacol. 58: 120-128.
5. Nabbout, R., Prud'homme, J.F., Herman, A., Feingold, J., Brice, A., Dulac, O. and LeGuern, E. 2002. A locus for simple pure febrile seizures maps to chromosome 6q22-q24. Brain 125: 2668-2680.
6. Duan, J., Martinez, M., Sanders, A.R., Hou, C., Saitou, N., Kitano, T., Mowry, B.J., Crowe, R.R., Silverman, J.M., Levinson, D.F. and Gejman, P.V. 2004. Polymorphisms in the trace amine receptor 4 (TRAR4) gene on chromosome 6q23.2 are associated with susceptibility to schizophrenia. Am. J. Hum. Genet. 75: 624-638.
7. Lindemann, L., Ebeling, M., Kratochwil, N.A., Bunzow, J.R., Grandy, D.K. and Hoener, M.C. 2005. Trace amine-associated receptors form structurally and functionally distinct subfamilies of novel G protein-coupled receptors. Genomics 85: 372-385.
8. Hart, M.E., Suchland, K.L., Miyakawa, M., Bunzow, J.R., Grandy, D.K. and Scanlan, T.S. 2006. Trace amine-associated receptor agonists: synthesis and evaluation of thyronamines and related analogues. J. Med. Chem. 49: 1101-1112.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: TAAR9 (human) mapping to 6q23.2.

SOURCE

TAAR9 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TAAR9 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-55329 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAAR9 (C-19) is recommended for detection of TAAR9 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 TAAR9 siRNA (h): sc-106594, TAAR9 shRNA Plasmid (h): sc-106594-SH and TAAR9 shRNA (h) Lentiviral Particles: sc-106594-V.

Molecular Weight of TAAR9: 39 kDa.

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) 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.

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.