



G α 14 (h3): 293T Lysate: sc-174410

BACKGROUND

Heterotrimeric G proteins are composed of three units, designated G α , G β and G γ , all of which work together to relay information from cell surface receptors to intracellular effectors. Each of a very broad range of receptors specifically detects an extracellular stimulus (a photon, pheromone, odorant, hormone or neurotransmitter), while the effectors (i.e. adenylyl cyclase), which act to generate one or more intracellular messengers, are less numerous. G α 14, also known as GNA14 (guanine nucleotide-binding protein subunit α -14), is a 355 amino acid protein that is expressed in fetal lung and belongs to the G α family of guanine-nucleotide binding proteins. G α 14 shares 98% homology with its mouse counterpart and is thought to play a role in transmembrane signaling systems throughout the body.

REFERENCES

1. Strathmann, M., Wilkie, T.M. and Simon, M.I. 1989. Diversity of the G-protein family: sequences from five additional α subunits in the mouse. *Proc. Natl. Acad. Sci. USA* 86: 7407-7409.
2. Strathmann, M.P. and Simon, M.I. 1991. G α 12 and G α 13 subunits define a fourth class of G protein α subunits. *Proc. Natl. Acad. Sci. USA* 88: 5582-5586.
3. Cali, J.J., Balcueva, E.A., Rybalkin, I. and Robishaw, J.D. 1992. Selective tissue distribution of G protein γ subunits, including a new form of the γ subunits identified by cDNA cloning. *J. Biol. Chem.* 267: 24023-24027.
4. McLaughlin, S.K., McKinnon, P.J. and Margolskee, R.F. 1992. Gustducin is a taste-cell-specific G protein closely related to the transducins. *Nature* 357: 563-569.
5. Von Weizsäcker, E., Strathman, M.P. and Simon, M.I. 1992. Diversity among the β subunits of heterotrimeric GTP-binding proteins: characterization of a novel β -subunit cDNA. *Biochem. Biophys. Res. Commun.* 183: 350-356.
6. Conklin, B.R. and Bourne, H.R. 1993. Structural elements of G α subunits that interact with G β γ receptors, and effectors. *Cell* 73: 631-641.
7. Simon, M.I., Strathmann, M.P. and Gautam, N. 1991. Diversity of G proteins in signal transduction. *Science* 252: 802-808.
8. Rubio, J.P., Levy, E.R., Dobson-Stone, C. and Monaco, A.P. 1999. Genomic organization of the human G α 14 and G α q genes and mutation analysis in chorea-acanthocytosis (CHAC). *Genomics* 57: 84-93.
9. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604397. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: GNA14 (human) mapping to 9q21.2.

PRODUCT

G α 14 (h3): 293T Lysate represents a lysate of human G α 14 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

G α 14 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive G α 14 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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