



$G_{\alpha 11}$ (m): 293T Lysate: sc-120367

BACKGROUND

Heterotrimeric G proteins function 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 (e.g. adenylyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein α , β and γ polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their α subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of G_{α} subunits have been identified; these include G_s , G_i , G_q and $G_{\alpha 12/13}$. The G_q class includes $G_{\alpha 15}$, $G_{\alpha 14}$, $G_{\alpha 11}$ and $G_{\alpha q}$, two of which, $G_{\alpha 11}$ and $G_{\alpha q}$, are abundant in brain and lung and present at lower levels in a variety of tissues.

REFERENCES

1. Strathmann, M. and Simon, M.I. 1990. G protein diversity: a distinct class of α subunits is present in vertebrates and invertebrates. *Proc. Natl. Acad. Sci. USA* 87: 9113-9117.
2. Simon, M.I., Strathmann, M.P. and Gautam, N. 1991. Diversity of G proteins in signal transduction. *Science* 252: 802-808.
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 $G_{\beta\gamma}$ receptors, and effectors. *Cell* 73: 631-641.

CHROMOSOMAL LOCATION

Genetic locus: Gna11 (mouse) mapping to 10 C1.

PRODUCT

$G_{\alpha 11}$ (m): 293T Lysate represents a lysate of mouse $G_{\alpha 11}$ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

$G_{\alpha 11}$ (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive $G_{\alpha 11}$ 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.

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.

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.