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# G<sub>α i-3</sub> (h): 293T Lysate: sc-176248

## 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 (i.e. adenylyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein  $\alpha$ ,  $\beta$  and  $\gamma$  polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their  $\alpha$  subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of G<sub>α</sub> subunits have been identified; these include G<sub>s</sub>, G<sub>i</sub>, G<sub>q</sub> and G<sub>α 12/13</sub>. The G<sub>i</sub> class comprises all the known  $\alpha$  subunits that are susceptible to pertussis toxin modifications, including G<sub>α i-1</sub>, G<sub>α i-2</sub>, G<sub>α i-3</sub>, G<sub>α o</sub>, G<sub>α t1</sub>, G<sub>α t2</sub>, G<sub>α z</sub> and G<sub>α gust</sub>. Of these, the three G<sub>α i</sub> subtypes function to open atrial potassium channels.

## REFERENCES

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7. Ogasawara, J., Sakurai, T., Rahman, N., Kizaki, T., Hitomi, Y., Ohno, H. and Izawa, T. 2004. Acute exercise alters G<sub>α i-2</sub> protein expressions through the ubiquitin-proteasome proteolysis pathway in rat adipocytes. *Biochem. Biophys. Res. Commun.* 323: 1109-1115.

## CHROMOSOMAL LOCATION

Genetic locus: GNAI3 (human) mapping to 1p13.3.

## PRODUCT

G<sub>α i-3</sub> (h): 293T Lysate represents a lysate of human G<sub>α i-3</sub> transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## 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.

## APPLICATIONS

G<sub>α i-3</sub> (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive G<sub>α i-3</sub> antibodies. Recommended use: 10-20  $\mu$ 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.

## PROTOCOLS

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