

IP Receptor (h2): 293T Lysate: sc-117332

BACKGROUND

Cyclooxygenases metabolize arachidonate to five primary prostanoids: PGE₂, PGF₂α, PGI₂, TXA₂ and PGD₂. These lipid mediators interact with specific members of G protein-coupled prostanoid receptors, designated EP, FP, IP, TP and DP, respectively. The IP Receptor binds prostacyclin, PGI₂, the main prostanoid synthesized by vascular tissues. First discovered in 1976, prostacyclin is involved in platelet aggregation inhibition, vasodilatation and cytoprotection, and either prostacyclin or its analogs are used in the treatment of hypertension. Upon binding to the IP Receptor, prostacyclin activates adenylate cyclase primarily through the Gas protein. The gene encoding the human IP Receptor is located on chromosome 19. It is expressed as a glycosylated and phosphorylated protein, which is abundantly expressed in vascular tissues such as aorta, lung, atrium and ventricle, as well as in kidney, thymus, spleen and neurons.

REFERENCES

1. Botting, R., et al. 1989. Vasoactive mediators derived from the endothelium. Arch. Mal. Coeur Vaiss. 82: 11-14.
2. Grant, S.M., et al. 1992. Iloprost. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in peripheral vascular disease, myocardial ischaemia and extracorporeal circulation procedures. Drugs 43: 889-924.
3. Nakagawa, O., et al. 1994. Molecular cloning of human prostacyclin receptor cDNA and its gene expression in the cardiovascular system. Circulation 90: 1643-1647.
4. Vane, J.R., et al. 1995. Pharmacodynamic profile of prostacyclin. Am. J. Cardiol. 75: 3-10.
5. Ogawa, Y., et al. 1995. Structural organization and chromosomal assignment of the human prostacyclin receptor gene. Genomics 27: 142-148.
6. Smyth, E.M., et al. 1996. Agonist-dependent phosphorylation of an epitope-tagged human prostacyclin receptor. J. Biol. Chem. 271: 33698-33704.

CHROMOSOMAL LOCATION

Genetic locus: PTGIR (human) mapping to 19q13.32.

PRODUCT

IP Receptor (h2): 293T Lysate represents a lysate of human IP Receptor transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

IP Receptor (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive IP Receptor antibodies. Recommended use: 10-20 µl per lane.

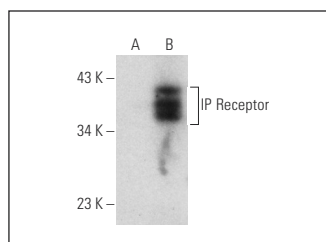
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IP Receptor (B-3): sc-365268 is recommended as a positive control antibody for Western Blot analysis of enhanced human IP Receptor expression in IP Receptor transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



IP Receptor (B-3): sc-365268. Western blot analysis of IP Receptor expression in non-transfected: sc-117752 (A) and human IP Receptor transfected: sc-117332 (B) 293T whole cell lysates.

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.