

β_2 -AR + G_{s α S}
 β_2 -Adrenergic Receptor + G_{s α S}
human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-548	1 ml



For *in vitro* use only
 Quality guaranteed for 12 months
 Store at -80°C

Avoid freeze / thaw cycles

Form

Membrane suspension. Supplied in 75 mM Tris-HCl, pH 7.4, 12.5 mM MgCl₂, and 1 mM EDTA.

Molecular Weight

45 kDa

Receptor expression level

5.8 - 9.5 pmol/mg.

Description

The β_2 -adrenoceptor (β_2 AR) is activated by the catecholamine epinephrine and couples to the G-protein G_s to mediate adenylate cyclase (AC) activation. β_2 ARs are found in numerous tissues and cell types including vascular and bronchial smooth muscle cells, leukocytes and liver. β_2 ARs mediate smooth muscle relaxation, inhibition of leukocyte function and activation of glycogenolysis. G_{s α S} is the short splice variant of the α -subunit of the heterotrimeric G-protein G_s. G_s activates the effector AC. G_{s α S} differs from the long splice variant (G_{s α L}) by the absence of a 15-amino acid insert between the raslike domain and the α -helical domain. G_{s α S} (cat.# PR-505) possesses a higher GDP-affinity than G_{s α L} (cat.# PR-501). Compared to a β_2 AR-G_{s α S} fusion protein (cat.# PR-544), the coupling efficiency in a co-expression system consisting of the β_2 AR + G_{s α S} is lower, most prominently with respect to GTPase activity and [³⁵S]GTP γ S binding. The β_2 AR contains a N-terminal FLAG-tag® and a C-terminal hexahistidine (His₆)-tag for immunochemical detection.

Selected References:

- Seifert *et al.* (1998) Reconstitution of β_2 -adrenoceptor-GTP-bindingprotein interaction in Sf9 cells: High coupling efficiency in β_2 -adrenoceptor-G_{s α} fusion protein. *Eur. J. Biochem.* **255**:369.
- Gille *et al.* (2003) Co-expression of the β_2 -adrenoceptor and dopamine D₁-receptor with G_{s α} proteins in Sf9 insect cells: limitations in comparison with fusion proteins. *Biochim. Biophys. Acta* **1613**:101.