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## **ARRB1 Antibody Blocking Peptide**

Catalog Number: bs-0857P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Beta Arrestin 1 is a member of a family of proteins that are widely expressed but especially

abundant in the central nervous system. Serving as an adaptor or scaffold molecule, beta Arrestin 1 is essential for mitogenic signaling. It mediates agonist dependent desensitization and internalization of G protein coupled receptors (GPCRs, e.g., beta 2 adrenergic receptor). After binding to their ligand and interacting with heterotrimeric G proteins, GPCRs are phosphorylated by G protein receptor kinases (GRKs) on serine residues. Beta Arrestin 1 has important roles in the cytoplasm and at the plasma membrane in the desensitization and internalization of G protein coupled receptors (GPCRs) and is increasingly appreciated to play an important role in the endocytosis and signaling of GPCRs. Beta Arrestin 1 in the cytosol is phosphorylated by ERK1 and 2 on serine 412 in a negative feedback mechanism and binds to the phosphorylated receptors at the plasma membrane. Serine 412 is then dephosphorylated and the GPCRs are internalized, leading to activation of the Ras, Raf,

ERK1 and 2 signaling pathway.