Eph Sampler Pack

Catalog #: SMPK1

Component	Catalog #	Size
Human EphA1	638-A1	50 µg
Mouse EphA2	639-A2	50 µg
Mouse EphA3	640-A3	50 µg
Mouse EphA4	641-A4	50 µg
Rat EphA5	541-A5	50 µg
Mouse EphA6	607-A6	50 µg
Mouse EphA7	608-A7	50 µg
Mouse EphA8	454-A8	50 µg

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The Eph receptors represent the largest family of receptor tyrosine kinases (RTK) in the human genome. Their ligands, the ephrins, are also cell surface bound proteins, thereby requiring cell-cell interaction for binding and signaling. The ephrin ligands are divided into two categories: the A class are tethered to the membrane by a GPI anchor, and the B class are transmembrane proteins. Likewise, the receptors are also divided into two categories based on sequence similarity and ligand specificity. Ephrin-A ligands bind EphA receptors and ephrin-B ligands bind EphB receptors, with the exception of EphA4 which binds both A and B-type ligands.

Eph/ephrin signaling is involved in vascular development, tissue-border formation, brain boundaries, cell migration, axon guidance, and synaptic plasticity. Eph/ephrin signaling activation generally results in repulsion of cells and often converges on the regulation of the cytoskeleton. Like most RTKs, ligand binding induces "forward" signaling, where a response occurs in the Eph receptor-containing cell. However, in some circumstances, this family can also exhibit "reverse signaling" where ephrins act as receptors responding to Eph signals, and ephrins signal back into their host cell.

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