

### ***Catalog #: SMPK2***

<b>Component</b>	<b>Catalog #</b>	<b>Size</b>
Rat EphB1	1596-B1	50 µg
Mouse EphB2	467-B2	50 µg
Mouse EphB3	432-B3	50 µg
Mouse EphB4	446-B4	50 µg
Mouse EphB6	611-B6	50 µg
Mouse EphA4	641-A4	50 µg

### ***Eph Sampler Pack***

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.