



20150218ML

# Anti-Mouse EphB4 (#6A14)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>103-M172</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat) immunized with recombinant mouse EphB4 extracellular domain. IgG1 fraction of the culture supernatant was purified by Protein A/G affinity chromatography.

## Target Background

<b>Synonyms (Target):</b>	Ephb4; Htk; MDK2; Myk1; Tyro11; AI042935Htk; MDK2; Myk1; Tyro11; AI042935
---------------------------	---

EphB4, also known as Htk, Myk1, Tyro11, and Mdk2, is a member of the Eph receptor family which binds members of the ephrin ligand family. There are two classes of receptors, designated A and B. Both the A and B class receptors have an extracellular region consisting of a globular domain, a cysteine-rich domain, and two fibronectin type III domains. This is followed by the transmembrane region and cytoplasmic region. The cytoplasmic region contains a juxtamembrane motif with two tyrosine residues, which are the major autophosphorylation sites, a kinase domain, and a conserved sterile alpha motif (SAM) in the carboxy tail which contains one conserved tyrosine residue. Activation of kinase activity occurs after ligand recognition and binding. EphB4 has been shown to bind ephrinB2 and ephrinB1. The extracellular domains of human and mouse EphB4 share 88% amino acid identity. Only membranebound or Fcclustered ligands are capable of activating the receptor in vitro. While soluble monomeric ligands bind the receptor, they do not induce receptor autophosphorylation and activation. In vivo, the ligands and receptors display reciprocal expression. It has been found that nearly all receptors and ligands are expressed in developing and adult neural tissue. The Eph/ephrin families also appear to play a role in angiogenesis.

## Database References Target

<b>Protein RefSeq:</b>	NP_001153043.1
<b>Uniprot ID:</b>	Q8C8K1
<b>mRNA RefSeq:</b>	NM_001159571.1

## Product Specifications

<b>Host</b>	Rat
<b>Reactivity against</b>	Mouse
<b>Clonality</b>	Monoclonal Antibody
<b>Clone</b>	(#6A14)
<b>Isotype</b>	IgG1
<b>Purification</b>	Protein G/A chromatography
<b>Antigen</b>	recombinant mouse EphB4 extracellular domain
<b>Formulation</b>	lyophilized
<b>Reconstitution buffer</b>	PBS (sterile)

**Reconstitution:** Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

**Remarks:** This antibody was selected for its ability to detect mouse EphB4.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB, IHC (P)

**Recommended usage:**

IHC (Paraffine): 1:100 - 1:200

Western Blot: 1:100 - 1:1000

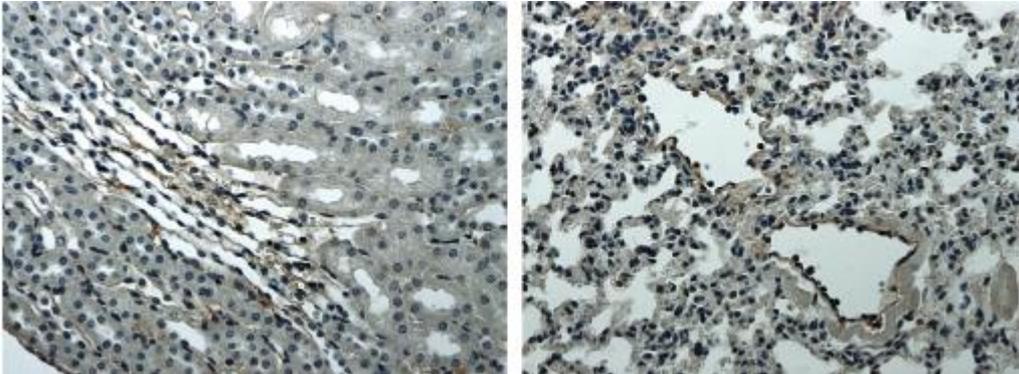
**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**



## Anti-Mouse EphB4 (#6A14)

---

### Application/Handling



EphB4 immunohistochemistry staining of paraffin sections of mouse kidney and liver tissues from LPS exposed animals.