# Product Datasheet

## Anti-MerTK (Tyr749/753/754)

### Overview

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>p186-749</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Species</td>
<td>Rabbit Polyclonal</td>
</tr>
<tr>
<td>Format</td>
<td>Antigen Affinity Purified from Pooled Serum</td>
</tr>
<tr>
<td>Applications</td>
<td>WB 1:1000</td>
</tr>
<tr>
<td>Species Tested</td>
<td>Human, Mouse, Rat</td>
</tr>
<tr>
<td>Expected Reactivity</td>
<td>Bovine, Canine, Chicken, Finch, Guinea Pig, Non-Human Primate</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr749/753/754 of human MerTK, conjugated to keyhole limpet hemocyanin (KLH).</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>160 kDa</td>
</tr>
</tbody>
</table>

Cite this Antibody: PhosphoSolutions Cat# p186-749, RRID: AB_2744537

## Images

Western blot of HEK293 lysate showing specific immunolabeling of the ~160 kDa MerTK phosphorylated at Tyr749/753/754 in the first lane (-). Phosphospecificity is shown in the second lane (+) where the immunolabeling is eliminated by blot treatment with λ phosphatase (λ-Ptase, 1200 units for 60 minutes).
**Details**

**Target Description**
Along with Tyro-3 and Axl, Mer is a member of the TAM family of receptor tyrosine kinases (RTKs). The TAM family of RTKs regulates cell proliferation/survival, cell adhesion and migration, and blood clot stabilization processes, along with the regulation of inflammatory cytokine release (Linger et al, 2008). Additionally, the TAM family has been linked to coagulopathy and cancer when altered experimentally or genetically (Linger et al, 2008). Tri-phosphorylation of MerTK at tyr749, tyr753 and tyr754 has been identified as a key target in platelet aggregation for developing a new anti-platelet drug that decreases bleeding complications, which are current side effects of similar drugs on the market today (Zhang et al, 2013). MerTK is also seen as a therapeutic target for treating lymphoblastic leukemias, melanoma, breast, lung, colon, liver, gastric, kidney, ovarian, uterine and brain cancers (Graham et al, 1994). There has recently been increased interest in synthesizing novel ATP-competitive small molecule tyrosine kinase inhibitors to decrease tri-phosphorylation of MerTK at tyr749, tyr753, and tyr754 as a therapeutic target to treat AML (Lee-Sherick et al, 2013).

**Specificity**
Specific for the ~160 kDa MerTK protein phosphorylated at Tyr749/753/754. The immunolabeling is completely eliminated by treatment with λ-phosphatase. Due to post-translational modifications of the Mer protein, a significant shift in molecular weight is seen from the predicted molecular weight of 110 kDa. For optimal results immunoprecipitation is recommended due to the 91% homology of the related receptor tyrosine kinase, Axl, that runs at ~140 kDa.

**Production/Purification**
Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

**Quality Control**
Western blots performed on each lot.

**Buffer**
10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.

**Storage**
Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol.

**Stability**
After date of receipt, stable for at least 1 year at -20°C.

**Significant Citations**


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