

## DESCRIPTION

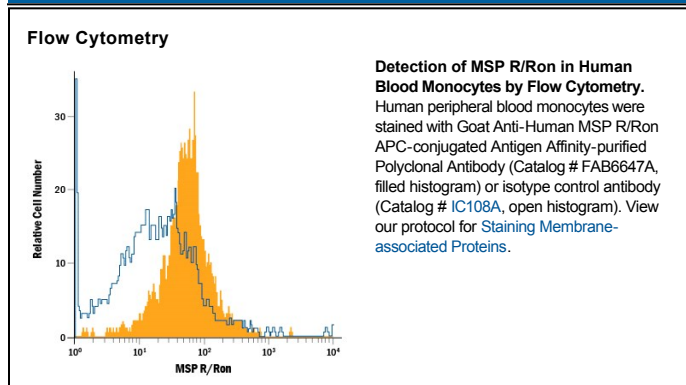
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human MSP R/Ron in direct ELISAs and Western blots. In these formats, approximately 25% cross-reactivity with recombinant mouse MSP R is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human MSP R/Ron Glu25-Ser956 Accession # CAA49634
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> ● 12 months from date of receipt, 2 to 8 °C as supplied.

**BACKGROUND**

Macrophage stimulating protein receptor (MSP R), encoded by the human Ron and the mouse Stk, is one of a small family of receptor tyrosine kinases (RTKs) that also includes human Met (the receptor for hepatocyte growth factor) and chicken Sea (1, 2). This family of receptors is synthesized as a single-chain precursor that is cleaved into a mature disulfide-linked heterodimer composed of an extracellular  $\alpha$  chain and a membrane spanning  $\beta$  chain with intrinsic tyrosine kinase activity. Biologically active ligands (MSP and HGF) for this family of receptors are also disulfide-linked  $\alpha$ - $\beta$  heterodimers. Human MSP R cDNA encodes a 1400 amino acid (aa) residue precursor protein with a 24 aa signal peptide, a 285 aa residue  $\alpha$  chain (Glu25-Arg309) and a 1091 aa residue transmembrane  $\beta$  chain (Gly310-Thr1400). The extracellular domain of MSP R is comprised of an N-terminal sema domain, a PSI (plexin semaphorins integrins) domain, followed by four immunoglobulin-like folds shared by plexins and transcription factors (3). The soluble sema domain binds MSP and inhibits the MSP R-dependent signaling pathways. MSP receptor is expressed in multiple tissues including specific areas of the central and peripheral nervous systems, epithelial cells along the digestive tract, skin and lung, and in subpopulations of the mononuclear phagocyte lineage (1, 2). Although free MSP  $\alpha$  or  $\beta$  chains have been shown to bind MSP R, only the heterodimeric MSP can induce receptor activation and cause biological activity (4, 5). MSP R associates with other transmembrane molecules including integrins, cadherins and other cytokine receptors. Transactivation and signaling crosstalk between MSP R and its associated transmembrane receptors have been demonstrated (6-8). Over aa 25-956, human MSP R shares 76% aa sequence identity with mouse MSP R.

**References:**

1. Gaudino, G. *et al.* (1994) EMBO J. **13**:3524.
2. Wang, M-H. *et al.* (1994) Science **266**:117.
3. Angelonis, D. *et al.* (2004) J. Biol. Chem. **279**:3726.
4. Wang, M-H. *et al.* (1997) J. Biol. Chem. **272**:16999.
5. Danilkovitch, A. *et al.* (1999) J. Biol. Chem. **274**:29937.
6. Danilkovitch-Miagkova, A. *et al.* (2000) J. Biol. Chem. **275**:14783.
7. Danilkovitch-Miagkova, A. and A. Leonard (2001) Histol. Histopathol. **16**:623.
8. Santora, M. *et al.* (2003) Dev. Cell **2**:257.