

#4269 Store at -20°C

## Ron (1B5) Mouse mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	170	Mouse IgG1	#Q04912	4486

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

Ron (1B5) Mouse mAb detects endogenous levels of the 170 kDa full-length Ron protein. This antibody does not cross-react with other family members.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant Trx-Ron fusion protein containing amino acids 210-320 of human Ron expressed in *E. coli*.

### Background

Ron is a member of the Met protooncogene family of receptor tyrosine kinases, which also includes Stk, c-Met, and c-Sea. The functional Ron is a heterodimer composed of a 40 kDa  $\alpha$  chain and a 150 kDa  $\beta$  chain. Ron is initially synthesized in the cells as a single-chain, pro-Ron precursor that is cleaved into the two active chains. The  $\alpha$  chain is completely extracellular, whereas the  $\beta$  chain traverses the cell membrane and contains the intracellular tyrosine kinase and regulatory elements (1,2). Ron mediates multiple signaling cascades that involve cell motility, adhesion, proliferation, and apoptosis. The signaling pathways activated downstream of Ron include the ras/mitogen-activated protein kinase (MAPK), phosphatidylinositol-3 kinase (PI3K)/Akt, and focal adhesion kinase (FAK) pathways. Ron activation can also significantly increase c-Src activity, a signaling intermediate involved in cell cycle progression, motility, angiogenesis, and survival (3,4). The function of Ron has been shown to be important for embryological development as well as implicated in the progression and metastasis of tumors (5).

### Background References

1. Ronsin, C. et al. (1993) *Oncogene* 8, 1195-202.
2. Gaudino, G. et al. (1994) *EMBO J* 13, 3524-32.
3. Wang, M.H. et al. (1996) *Oncogene* 13, 2167-75.
4. Danilkovitch-Miagkova, A. (2003) *Curr Cancer Drug Targets* 3, 31-40.
5. Leonard, E.J. (1997) *Ciba Found Symp* 212, 183-91; discussion 192-7.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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