

## Rab 5

Cat.No. 108 111; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 up to 1 : 10000 (AP staining) <b>IP:</b> yes <b>ICC:</b> 1 : 100 up to 1 : 1000 (see remarks) <b>IHC:</b> 1 : 50 up to 1 : 500 <b>IHC-P/FFPE:</b> not tested yet
Clone	621.4
Subtype	IgG2a (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 215 from rat Rab5 (UniProt Id: O88565)
Reactivity	Reacts with: human (Q9UJ41), rat (M0RC99), mouse (Q9JM13). Other species not tested yet.
Specificity	Specific for rab 5 (probably only rab 5a). No cross-reactivity to other rab proteins.
Remarks	<b>ICC:</b> Not suitable for ICC of aldehyde- fixed tissues or cells. This antibody was used very successfully for immunoisolation of early endosomes and for the differentiation of early endosomes from related trafficking organelles in neurons and nonneuronal cells.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**Rab 5** is a member of the Rab protein family that belongs to the ras-related superfamily of small monomeric GTPases. Rab 5 is ubiquitously expressed in all tissues where it functions in the fusion of early endosomes which is the first fusion step of endocytic organelles after their formation and detachment from the plasma membrane. It is presently the best marker with selectivity for this compartment.

### Selected References SYSY Antibodies

Vti1a/b regulate synaptic vesicle and dense core vesicle secretion via protein sorting at the Golgi. Emperador-Melero J, Huson V, van Weering J, Bollmann C, Fischer von Mollard G, Toonen RF, Verhage M Nature communications (2018) 9(1): 3421. **ICC; tested species: mouse**

SNARE proteins are highly enriched in lipid rafts in PC12 cells: implications for the spatial control of exocytosis. Chamberlain LH, Burgoyne RD, Gould GW Proceedings of the National Academy of Sciences of the United States of America (2001) 98(10): 5619-24. **WB; tested species: rat**

### Selected General References

Rab GTPases coordinate endocytosis. Somsel Rodman J, Wandinger-Ness A Journal of cell science (2000) 113 Pt 2: 183-92.

Alzheimer amyloid protein precursor is localized in nerve terminal preparations to Rab5-containing vesicular organelles distinct from those implicated in the synaptic vesicle pathway. Ikin AF, Annaert WG, Takei K, De Camilli P, Jahn R, Greengard P, Buxbaum JD The Journal of biological chemistry (1996) 271(50): 31783-6.