

#8665 Store at -20°C

# Rag and LAMTOR Antibody Sampler Kit



✓ 1 Kit  
(7 x 20 µl)

**Orders** ■ 877-616-CELL (2355)  
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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Products Included	Product #	Quantity	Mol. Wt.	Isotype
LAMTOR1/C11orf59 (D11H6) XP® Rabbit mAb	8975	20 µl	18 kDa	Rabbit IgG
LAMTOR2/ROBLD3 (D7C10) Rabbit mAb	8145	20 µl	14 kDa	Rabbit IgG
LAMTOR3/MAPKSP1 (D38G5) Rabbit mAb	8168	20 µl	14 kDa	Rabbit IgG
RagA (D8B5) Rabbit mAb	4357	20 µl	30 kDa	Rabbit IgG
RagB (D18F3) Rabbit mAb	8150	20 µl	40 kDa	Rabbit IgG
RagC (D31G9) XP® Rabbit mAb	5466	20 µl	50 kDa	Rabbit IgG
RagD Antibody	4470	20 µl	50 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

See [www.cellsignal.com](http://www.cellsignal.com) for individual component applications, species cross-reactivity, dilutions and additional application protocols.

**Description:** The Rag and LAMTOR Antibody Sampler Kit is an economical means of detecting various Rag and LAMTOR proteins implicated within mTOR complex signaling. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

**Background:** The mTORC kinase complex is a critical regulator of cell growth (1,2). Its activity is modulated by energy levels, growth factors, and amino acids via signaling through Akt, MAPK, and AMPK pathways (3,4). Recent studies found that the four related GTPases, RagA, RagB, RagC, and RagD, interact with raptor within the mTORC1 complex (1,2). These interactions are both necessary and sufficient for mTORC1 activation in response to amino acid signals (1,2). According to the research literature, RagD is one of several genes differentially expressed in human melanoma cell lines and has been considered to be a viable target for further diagnostic and therapeutic study (5). A protein complex consisting of LAMTOR1/C11orf59, LAMTOR2/ROBLD3, and LAMTOR3/MAPKSP1 has been identified to interact with and recruit four Rag GTPases to the surface of lysosomes (6).

**Specificity/Sensitivity:** LAMTOR1/C11orf59 (D11H6) XP® Rabbit mAb, LAMTOR2/ROBLD3 (D7C10) Rabbit mAb, and LAMTOR3/MAPKSP1 (D38G5) Rabbit mAb recognize endogenous levels of each specific protein. In addition, each antibody may cross-react with other LAMTOR proteins. RagA (D8B5) Rabbit mAb recognizes endogenous levels of total RagA protein. This antibody may also recognize endogenous levels of total RagB protein. RagB (D18F3) Rabbit mAb recognizes endogenous levels of total RagB protein. RagC (D8H5) Rabbit mAb recognizes endogenous levels of total RagC protein. RagC (D31G9) XP® Rabbit mAb recognizes endogenous levels of total RagC protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala71 of human LAMTOR1/C11orf59 protein, residues surrounding Leu31 of human LAMTOR2/ROBLD3 protein, residues surrounding Val16 of human LAMTOR3/MAPKSP1 protein, a synthetic peptide corresponding to the sequence of human RagA protein or residues in the amino terminus of human RagB, and RagC protein. Polyclonal antibody is produced by immunizing animal with a synthetic peptide corresponding to the sequence of human RagD proteins. Polyclonal antibodies are purified by protein A and peptide affinity chromatography.

- Background References:**
- (1) Sancak, Y. et al. (2008) *Science* 320, 1496-501.
  - (2) Kim, E. et al. (2008) *Nat Cell Biol* 10, 935-45.
  - (3) Hay, N. and Sonenberg, N. (2004) *Genes Dev* 18, 1926-45.
  - (4) Wullschleger, S. et al. (2006) *Cell* 124, 471-84.
  - (5) de Wit, N.J. et al. (2005) *Br J Cancer* 92, 2249-61.
  - (6) Sancak, Y. et al. (2010) *Cell* 141, 290-303.

**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 antibodies.

**Recommended Antibody Dilutions:**  
Western blotting 1:1000

Please visit [www.cellsignal.com](http://www.cellsignal.com) for validation data and a complete listing of recommended companion products.

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.