

# RagD Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	50	Rabbit	#Q9NQL2	58528

## 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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

RagD Antibody detects endogenous levels of total RagD protein.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser37 of human RagD protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

The mTORC1 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). RagD is one of several genes differentially expressed in human melanoma cell lines and has been considered as a viable target for further diagnostic and therapeutic study (5).

## 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.

## 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 BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting

## Cross-Reactivity Key

**H:** Human

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