

#37135 Store at -20°C

IRP2 (D6E6W) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	105	Rabbit IgG	#P48200	3658

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	IRP2 (D6E6W) Rabbit mAb recognizes endogenous levels of total IRP2 protein. It does not recognize human IRP1.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro731 of human IRP2 protein.	
Background	<p>Iron regulatory proteins (IRPs; also known as IREBs) are RNA-binding proteins that recognize iron-responsive elements (IRES) and play an important role in maintaining iron homeostasis in mammalian cells. IREs are conserved cis-regulatory hairpin structures located within the 5' or 3' untranslated regions (UTRs) of target mRNAs. IRPs inhibit translation when bound to IREs within the 5' UTR of mRNA encoding for proteins involved in iron storage, export, and utilization. IRP binding to multiple IREs within the 3' UTR of transferrin receptor 1 (TFR1) mRNA prevents its degradation, thereby augmenting translation of TFR1 and increasing iron uptake into cells (1-3). Dysregulation of IRPs has been associated with human cancers (4-6).</p> <p>In iron replete cells, FBXL5 targets IRP2 for degradation. Under iron deficiency and/or hypoxic conditions, FBXL5 is destabilized, resulting in IRP2 accumulation and interaction with IRE-containing mRNA (7).</p>	
Background References	<ol style="list-style-type: none"> 1. Rouault, T.A. (2006) <i>Nat Chem Biol</i> 2, 406-14. 2. Wang, J. and Pantopoulos, K. (2011) <i>Biochem J</i> 434, 365-81. 3. Pantopoulos, K. et al. (2012) <i>Biochemistry</i> 51, 5705-24. 4. Haro, K.J. et al. (2012) <i>PLoS One</i> 7, e48841. 5. Wang, W. et al. (2014) <i>Cancer Res</i> 74, 497-507. 6. Jeong, S.M. et al. (2015) <i>Oncogene</i> 34, 2115-24. 7. Moroishi, T. et al. (2011) <i>Cell Metab</i> 14, 339-51. 	

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	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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