

Store at
-20C
#77510**IRG1 (D6H2Y) Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 53	Source/Isotype: Rabbit IgG	UniProt ID: #A6NK06	Entrez-Gene Id: 730249
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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

IRG1 (D6H2Y) Rabbit mAb recognizes endogenous levels of total IRG1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly460 of human IRG1 protein.

Background

IRG1 (Immune-responsive gene 1) is one of the most up-regulated genes in macrophages under proinflammatory conditions (1). It is also highly expressed in the pregnant uterus during implantation (2,3). IRG1 is a cis-aconitate decarboxylase that produces itaconic acid by decarboxylating cis-aconitic acid, an intermediate of the tricarboxylic acid cycle (4). Itaconic acid is an endogenous inhibitor of succinate dehydrogenase, linking macrophage metabolic rewiring and regulation of inflammation (5,6).

Background References

1. Lee, C.G. et al. (1995) *Immunogenetics* 41, 263-70.
2. Chen, B. et al. (2003) *Mol Endocrinol* 17, 2340-54.
3. Cheon, Y.P. et al. (2003) *Endocrinology* 144, 5623-30.
4. Michelucci, A. et al. (2013) *Proc Natl Acad Sci U S A* 110, 7820-5.
5. Lampropoulou, V. et al. (2016) *Cell Metab* 24, 158-66.
6. Cordes, T. et al. (2016) *J Biol Chem* 291, 14274-84.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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