Revision 1

Store at -20C

#77510

# IRG1 (D6H2Y) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

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

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 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

## Trademarks and Patents



## Limited Uses

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