

Store at
-20°C
#16029

Mouse-Reactive STING Pathway Antibody Sampler Kit

1 Kit (7 x 20 microliters)

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

| Product Includes | Product # | Quantity | Mol. Wt | Isotype/Source |
|--|-----------|----------|------------|----------------|
| STING (D1V5L) Rabbit mAb | 50494 | 20 µl | 33, 35 kDa | Rabbit IgG |
| Phospho-STING (Ser365) (D8F4W) Rabbit mAb | 72971 | 20 µl | 41 kDa | Rabbit IgG |
| cGAS (D3O8O) Rabbit mAb | 31659 | 20 µl | 62 kDa | Rabbit IgG |
| TBK1/NAK (D1B4) Rabbit mAb | 3504 | 20 µl | 84 kDa | Rabbit IgG |
| Phospho-TBK1/NAK (Ser172) (D52C2) XP® Rabbit mAb | 5483 | 20 µl | 84 kDa | Rabbit IgG |
| IRF-3 (D83B9) Rabbit mAb | 4302 | 20 µl | 45-55 kDa | Rabbit IgG |
| Phospho-IRF-3 (Ser396) (D6O1M) Rabbit mAb | 29047 | 20 µl | 45-55 kDa | Rabbit IgG |
| Anti-rabbit IgG, HRP-linked Antibody | 7074 | 100 µl | | Goat |

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Mouse-Reactive STING Pathway Antibody Sampler Kit provides an economical means of detecting activation and expression of key components of the STING pathway using phospho-specific and control antibodies. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

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.

Background

Stimulator of interferon genes (STING, TMEM173, MITA) is a transmembrane adaptor protein that is a critical component of the cellular innate immune response to pathogenic cytoplasmic DNA (1,2). STING is a ubiquitously expressed protein found predominantly in the ER (1). The enzyme cGAMP synthase (cGAS) produces the second messenger cyclic-GMP-AMP (cGAMP) in response to cytoplasmic DNA (3,4). cGAMP binds and activates STING (3,4). In addition, detection of cytoplasmic DNA by nucleic acid sensors, including DDX41 or IFI16, results in STING activation (5,6). Following activation, STING translocates with TBK1 to perinuclear endosomes and gets phosphorylated by ULK1 at Ser366 (Ser365 in mouse) (7,8). The TBK1 kinase phosphorylates and activates IRF-3 and NF-κB, which leads to the induction of type I interferon and other immune response genes (1,2,7).

Background References

1. Ishikawa, H. and Barber, G.N. (2008) *Nature* 455, 674-8.
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3. Sun, L. et al. (2013) *Science* 339, 786-91.
4. Wu, J. et al. (2013) *Science* 339, 826-30.
5. Zhang, Z. et al. (2011) *Nat Immunol* 12, 959-65.
6. Unterholzner, L. et al. (2010) *Nat Immunol* 11, 997-1004.
7. Ishikawa, H. et al. (2009) *Nature* 461, 788-92.
8. Konno, H. et al. (2013) *Cell* 155, 688-98.

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