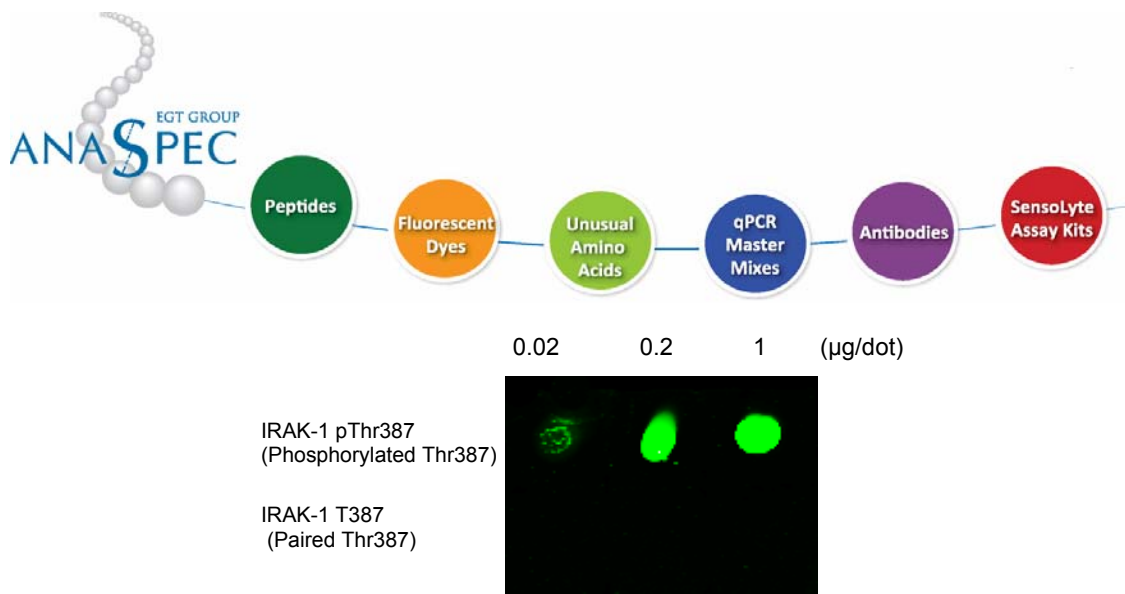


## Product Data Sheet

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Product Name:	<b>Anti-IRAK1 (pThr 387) (2D6), mouse monoclonal</b> (IL-1-Receptor Associated Kinase)
Catalog Number:	55946
Clone Number:	2D6
Lot Number:	See label on vial
Product Description:	This product is supplied as an epitope affinity purified mouse monoclonal antibody. 50µg in 250 µl of 1x PBS (pH 7.5) containing BSA and 0.02% sodium azide.
Immunogen:	Mouse monoclonal antibody was raised against a synthetic peptide corresponding to human interleukin-1 (IL-1) receptor-associated kinase (IRAK-1) at the phosphorylated threonine 387 (Accession number: NP_001020414).
Isotype:	IgM
Light Chain Type:	Lambda
Species Reactivity:	Species reactivity includes human, mouse, and rat, while others remain unknown. This antibody was evaluated for specificity with dot blot assay using synthetic IRAK-1 peptides. It only recognized IRAK-1 peptide with threonine 387 phosphorylated.
Application Notes:	<p>The following concentration ranges are recommended for this product. Optimal working concentrations should be determined by the investigator for specific applications.</p> <p>Dot Blot: 1:200-2,000 Western Blot*: 1:200-2,000 IHC*: 1:100-1,000 Immunoprecipitation*: 3.0-5.0 µg/ extract from 10<sup>7</sup> cells (*Recommended but not tested)</p>



### Dot Blot Application

Dot blot analysis of mouse anti-IRAK-1 (pThr387) monoclonal antibody using synthetic peptides: IRAK-1 (Phosphorylated Thr387), and IRAK-1 (Paired Thr387) dotted at 0.02, 0.2 and 1 µg concentration. Primary antibody was then probed with Goat anti-mouse IgG (H+L), highly cross-adsorbed, HiLyte Fluor™ 750-labeled (Cat# 61057-1-H750) for signal detection.

### Background:

Interleukin-1 (IL-1) receptor-associated kinase (IRAK) is a serine/threonine-specific kinase (1). The mammalian family of IRAK molecules contains four members (IRAK1, IRAK2, IRAK3/IRAK-M and IRAK4). The binding of IL-1 to IL-1 receptor type I (IL-1RI) initiates the formation of a complex that includes IL-1RI, AcP, MyD88 and IRAKs (2). IRAK undergoes autophosphorylation shortly after IL-1 stimulation and serves as a signaling molecule to mediate IL-1 response (3). IRAK mediates a signaling cascade leading to NF-KB activation by members in IL-1 family including IL-1 and a novel cytokine IL-18 (also termed IGIF) (1, 4).

### References:

1. Dinarello, C.A. *Blood* **87**, 2095 (1996).
2. Takaesu, G. et al. *Mol. Cell. Biol.* **21**, 2475 (2001).
3. Jianing H. et al. *Proc. Natl. Acad. Sci. USA* **94**, 12829 (1997).
4. Robinson D. et al. *Immunity* **7**, 571 (1997).

### Storage:

The antibody is stable for 6 months at 4°C. For long-term storage, divide the solution into aliquots and store at -20°C. Avoid multiple thaw-freeze cycles. The product is stable for 1 year at -20°C.

### Related products:

Please check our website for more [Anti-IRAK antibodies](#).

This product is for *in vitro* research use only.

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