

# PRODUCT INFORMATION



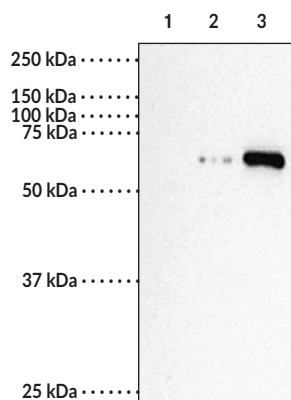
## Fatty Acid Amide Hydrolase Polyclonal Antibody

Item No. 101600

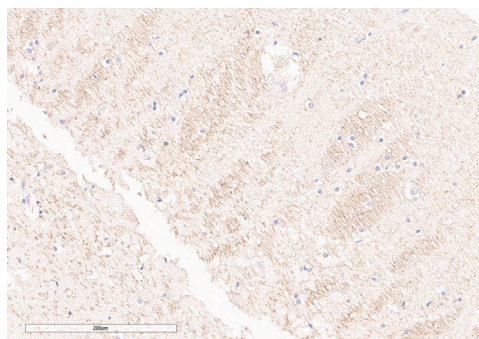
### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl peptide affinity-purified polyclonal antibody.
<b>Synonyms:</b>	Anandamide Amidohydrolase 1, FAAH, Oleamide Hydrolase 1, PSAB
<b>Immunogen:</b>	Synthetic peptide from the C-terminal region of rat FAAH
<b>Species Reactivity:</b>	(+) Human, mouse, and rat; other species not tested
<b>Uniprot No.:</b>	P97612
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Application:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:40 for IHC and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



Lane 1: FAAH Recombinant Protein (20 ng)  
Lane 2: FAAH Recombinant Protein (50 ng)  
Lane 3: FAAH Recombinant Protein (150 ng)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human brain tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with Fatty Acid Amide Hydrolase Polyclonal Antibody (Item No. 101600) at a 1:40 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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## Description

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Fatty acid amide hydrolase (FAAH) is a serine hydrolase with a major role in the hydrolysis of endocannabinoids.<sup>1-3</sup> It is composed of an N-terminal transmembrane domain, a catalytic domain containing an amidase signature sequence, a polyproline sequence, and a monotopic membrane binding domain.<sup>3</sup> FAAH is localized to microsomal and mitochondrial membranes and is highly expressed in the CNS but can also be found in peripheral tissues such as lung, gastrointestinal tract, kidney, liver, bladder, prostate, and testis.<sup>2,4</sup> It primarily catalyzes the inactivation of the endogenous endocannabinoid arachidonoyl ethanolamide (AEA; Item No. 90050) *via* hydrolysis to arachidonic acid and ethanolamine but has broad substrate selectivity towards fatty acid amides, including oleamide, N-acyltaurines, and other N-acylethanolamines.<sup>2</sup> Genetic or pharmacologic knockdown of FAAH increases levels of AEA and dampens pain sensitivities and inflammatory endpoints in rodent models of inflammatory pain, allergic contact dermatitis, inflammatory bowel disease, and neuropathic pain.<sup>5</sup> Cayman's Fatty Acid Amide Hydrolase Polyclonal Antibody can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Cravatt, B.F., Giang, D.K., Mayfield, S.P., *et al.* Molecular characterization of an enzyme that degrades neuromodulatory fatty-acid amides. *Nature* **384**, 83-87 (1996).
2. van Egmond, N., Straub, V.M., and van der Stelt, M. Targeting endocannabinoid signaling: FAAH and MAG lipase inhibitors. *Annu. Rev. Pharmacol. Toxicol.* **61**, 441-463 (2021).
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4. Deutsch, D.G., Ueda, N., and Yamamoto, S. The fatty acid amide hydrolase (FAAH). *Prostaglandins Leukot. Essent. Fatty Acids* **66(2-3)**, 201-210 (2002).
5. Schlosburg, J.E., Kinsey, S.G., and Lichtman, A.H. Targeting fatty acid amide hydrolase (FAAH) to treat pain and inflammation. *AAPS J.* **11(1)**, 39-44 (2009).

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