

ARG43386
anti-Caspase 11 antibodyPackage: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Caspase 11
Tested Reactivity	Ms, Rat
Tested Application	IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Caspase 11
Species	Mouse
Immunogen	Recombinant protein of Mouse Caspase 11.
Conjugation	Un-conjugated
Alternate Names	Cas; ich-; Caspa; Caspl; ich-3; CASP-4; Casp11; CASP-11

Application Instructions

Application table	Application	Dilution
	IP	1:20
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat brain	
Observed Size	43 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	50 mM Tris-Glycine (pH 7.4), 150 mM NaCl, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Concentration	Batch dependent
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

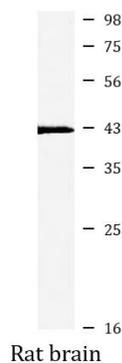
Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Casp4
Gene Full Name	caspase 4, apoptosis-related cysteine peptidase
Background	This gene encodes a member of the cysteine proteases that plays important roles in apoptosis, cell migration and the inflammatory response. The encoded protein mediates production of pro-inflammatory cytokines by macrophages upon bacterial infection. Mice lacking the encoded protein are resistant to endotoxic shock induced by lipopolysaccharide. A 5-bp deletion encompassing a splice acceptor junction resulting in alternate splicing and a shorter non-functional isoform in certain mouse strains has been described. Although its official nomenclature is "caspase 4, apoptosis-related cysteine peptidase", this gene and its encoded protein have historically been called caspase 11. This gene is present in a cluster of three caspase genes on chromosome 9. [provided by RefSeq, Apr 2015]
Function	Inflammatory caspase that acts as an essential effector of NLRP3 inflammasome-dependent CASP1 activation and IL1B and IL18 secretion in response to non-canonical activators, such as UVB radiation, cholera enterotoxin subunit B and cytosolic LPS, as well as infection with Gram-negative bacteria (PubMed:8702803, PubMed:9038361, PubMed:22002608, PubMed:25119034). Thiol protease that cleaves a tetrapeptide after an Asp residue at position P1 (By similarity). Independently of NLRP3 inflammasome and CASP1, promotes pyroptosis, through GSDMD cleavage and activation, followed by IL1A, IL18 and HMGB1 release in response to non-canonical inflammasome activators (PubMed:22002608, PubMed:26320999, PubMed:26375003). Plays a crucial role in the restriction of Salmonella typhimurium replication in colonic epithelial cells during infection: in later stages of the infection, LPS from cytosolic Salmonella triggers CASP4 activation, which catalyzes cleavage of GSDMD, resulting in pyroptosis of infected cells and their extrusion into the gut lumen, as well as in IL18 secretion (PubMed:25121752, PubMed:26375003). Cleavage of GSDMD is not strictly dependent on the consensus cleavage site but depends on an exosite interface on CASP4 that recognizes and binds the Gasdermin-D, C-terminal (GSDMD-CT) part (PubMed:32554464, PubMed:32109412). Pyroptosis limits bacterial replication, while cytokine secretion promotes the recruitment and activation of immune cells and triggers mucosal inflammation (PubMed:25121752). Involved in LPS-induced IL6 secretion; this activity may not require caspase enzymatic activity (By similarity). Involved in cell death induced by endoplasmic reticulum stress (By similarity). Activated by direct binding to LPS without the need of an upstream sensor (PubMed:25119034). Does not directly process IL1B (PubMed:8702803, PubMed:9038361). During non-canonical inflammasome activation, cuts CGAS and may play a role in the regulation of antiviral innate immune activation (PubMed:28314590). [UniProt]
Calculated Mw	43 kDa

Images



ARG43386 anti-Caspase 11 antibody WB image

Western blot: Rat brain lysate stained with ARG43386 anti-Caspase 11 antibody at 1:1000 dilution.