

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ZBP1/DLM-1/DAI in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ZBP1/DLM-1/DAI Ala2-Ile429 Accession # Q9H171
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ZBP1 (Z-DNA binding protein 1; also DAI and DLM-1) is a 15-60 kDa cytosolic detector of intracellular DNA. In a TOLL-independent manner, ZBP1 detects cytoplasmic dsDNA and initiates INF-β production. It does so by binding DNA, followed by multimerization and recruitment of TBK1 and IRF3. This is accompanied by a parallel interaction with RIP-1 and -3 that stimulates NFκB activity and cytokine production. Human ZBP1 is 429 amino acids (aa) in length. It contains two DNA-binding Z-regions (aa 6-72 and 103-168) plus a third DNA-binding region that likely lies in the region between aa 170-250. Multiple splice forms exist. One shows a deletion of aa 12-86, a second shows a 63 aa substitution for aa 87-429, a third contains a 24 aa substitution for aa 225-429, a fourth reveals a deletion of aa 87-109, while a fifth and sixth show 82 and 16 aa substitutions for aa 365-429, respectively. Full length human ZBP1 shares only 47% aa identity with mouse ZBP1.

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