

Cezanne

Cat. # DB208

Background:

Cezanne is a negative regulator of the non-canonical NF-kappa-B pathway that acts by mediating deubiquitylation of TRAF3, an inhibitor of the NF-kappa-B pathway, thereby acting as a negative regulator of B-cell responses. In response to non-canonical NF-kappa-B stimuli, Cezanne deubiquitylates 'Lys-48'-linked polyubiquitin chains of TRAF3, preventing TRAF3 proteolysis and over-activation of non-canonical NF-kappa-B. It negatively regulates mucosal immunity against infections (By similarity). It deubiquitylates ZAP70, and thereby regulates T cell receptor (TCR) signaling that leads to the activation of NF-kappa-B¹. It plays a role in T cell homeostasis and is required for normal T cell responses, including production of IFN γ and IL2 (By similarity). Mediates deubiquitylation of EGFR². Has deubiquitinating activity toward 'Lys-11', 'Lys-48' and 'Lys-63'-linked polyubiquitin chains³. Has a much higher catalytic rate with 'Lys-11'-linked polyubiquitin chains (in vitro); however the physiological significance of these data are unsure. Hydrolyzes both linear and branched forms of polyubiquitin.

Alternate Names: OTU domain-containing protein 7B, ZA20D1

Product Information:

Molecular Weight:	103 kDa
Quantity:	25 μ g
Physical State:	Liquid
Purity:	>90%
Source:	Human Recombinant
Tag:	N-terminal His6-SUMO
Activity:	This enzyme cleaves K11-, K48- and K63- linked ubiquitin chains <i>in vitro</i>
Storage:	Store at -80°C, avoiding repeated freeze-thaw cycles.

References

- 1) Hu, H et al. *Otud7b facilitates T cell activation and inflammatory responses by regulating Zap70 ubiquitination*. [J Exp Med](#). 2016 Mar 7;213(3):399-414. doi: 10.1084/jem.20151426. Epub 2016 Feb 22.
- 2) Pareja F et al. Deubiquitination of EGFR by Cezanne-1 contributes to cancer progression. [Oncogene](#). 2012 Oct 25;31(43):4599-608. doi: 10.1038/onc.2011.587. Epub 2011 Dec 19.
- 3) Mevissen, TE et al. *Molecular basis of Lys11-polyubiquitin specificity in the deubiquitinase Cezanne*. [Nature](#). 2016 Oct 20;538(7625):402-405. doi: 10.1038/nature19836. Epub 2016 Oct 12.

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