

## Biotin anti-human IL-32 $\alpha\beta\gamma\delta$

**Catalog # / Size:** 513503 / 50  $\mu$ g

**Clone:** KU32-52

**Isotype:** Mouse IgG1,  $\kappa$

**Immunogen:** Recombinant human IL-32 $\alpha$

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. **Do not freeze.**

## Applications:

**Applications:** ELISA Detection - *Quality tested*  
FC, WB, IF, IP - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by ELISA assay. For use as an ELISA detection antibody, a concentration range of 0.2-1  $\mu$ g/ml is recommended. To obtain a linear standard curve, serial dilutions of human IL-32 recombinant protein ranging from 2000 to 15 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application

**Application Notes:** **ELISA<sup>1</sup> Detection:** The biotinylated KU32-52 antibody is useful as a detection antibody in a sandwich ELISA assay, when used in conjunction with purified KU32-07 or KU32-56 antibody as the capture antibody for measuring human IL-32.

**Additional reported applications (for the relevant formats) include:** Western blotting, immunofluorescence and immunoprecipitation.

**Application References:**

1. Kim KH, *et al.* 2008. *J. Immunol. Methods* 333:38.
2. Greene CM, *et al.* 2009. *Am J. Respir Crit Care Med.* PubMed
3. Li W, *et al.* 2010. *J. Immunol.* 185:5056. PubMed
4. Soyka MB, *et al.* 2012. *Allergy.* DOI:10.1111/j.1398-9995.2012.02820.x. (FC, IF) PubMed

**Description:** Interleukin 32 (IL-32), previously known as a transcript (NK4), is produced by mitogen-activated lymphocytes, by IFN $\gamma$ -activated epithelial cells or by IL-12 and IL-18-activated NK cells. Its expression is increased following activation of T-cells by mitogens or the activation of NK cells by IL-2. IL-32 activates NF- $\kappa$ -B and p38 MAPK cytokine signal pathways. It has been suggested that IL-32 may play a role in autoimmune and inflammatory diseases such as rheumatoid arthritis. IL-32 is unusual in that it does not share sequence homology with known cytokine families and is highly expressed in immune tissues. IL-32 exists in at least four differentially spliced isoforms ( $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$ ) with predicted molecular weight: ~26 kD. IL-32 $\alpha$  is the shortest and most abundant of four potential splice variants of the pro-inflammatory cytokine IL-32. Potential modifications include myristoylation and N-glycosylation. Transfected IL-32 alpha was more likely to be cell-associated as compared to IL-32 $\beta$ , suggesting an intracellular function.

**Antigen References:**

1. Kim KH, *et al.* 2008. *J. Immunol. Methods* 333:38.
2. Conti P, *et al.* 2007. *Autoimmun. Rev.* 6:131.
3. Chen Q, *et al.* 2006. *Vitam Horm.* 74:207.
4. Kim SH, *et al.* 2005. *Immunity* 22:131.
5. Cagnard N, *et al.* 2005. *Eur. Cytokine Netw.* 16:289.
6. Banda NK, *et al.* 2003. *J. Immunol.* 170:2100.



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