# 6983

# Mouse His6Interleukin-33 (mHis6IL-33)



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MW (kDa): 22	UniProt ID: #Q8BVZ5	Entrez-Gene Id: 77125
Background		IL-33 is a novel member of the IL-1 family of proteins that was discovered in a computational search to identify unknown family members (1). IL-33 is expressed by fibroblasts and endothelial cells, and is upregulated in response to inflammatory stimuli (1). IL-33 plays a key role in Th2 type inflammatory responses, including atopic allergic responses and asthma (1,2). The IL-33 receptor consists of the ST2 and IL-1 accessory protein (IL-1-Acp) (1,3). ST2 is expressed on mast cells, basophils and Th2 cells (1). In addition to its putative role as a Th2 cytokine, IL-33 also contains a nuclear localization domain and may function as a nuclear factor (4,5). The nuclear function of IL-33 remains unclear. IL-33 is released by cellular necrosis, similar to other "alarmins", thereby signaling tissue injury (5,6). However, more recent data suggests that IL-33 may also be actively secreted from live cells via a non-classical mechanism (7).
Endotoxin		Less than 0.01 ng endotoxin/1 μg m <sub>His6</sub> IL-33.
Purity		>98% as determined by SDS-PAGE of 6 $\mu g$ reduced (+) and non-reduced (-) recombinant m <sub>His6</sub> IL-33. All lots are greater than 98% pure.
Source / Purificat	tion	Recombinant mouse $_{His6}IL$ -33 ( $m_{His6}IL$ -33) Ser109-Ile266 (Accession #NP_598536) was produced in <i>E.coli</i> at Cell Signaling Technology.
Bioactivity		The bioactivity of recombinant $m_{His6}IL$ -33 was determined by its ability to induce IL-13 production by MC/9 cells. The ED <sub>50</sub> of each lot is between 1-6 ng/ml.
Background Refe	erences	1. Liew, F.Y. et al. (2010) <i>Nat Rev Immunol</i> 10, 103-10. 2. Chackerian, A.A. et al. (2007) <i>J Immunol</i> 179, 2551-5. 3. Borish, L. and Steinke, J.W. (2011) <i>Curr Allergy Asthma Rep</i> 11, 7-11. 4. Moussion, C. et al. (2008) <i>PLoS One</i> 3, e3331. 5. Cayrol, C. and Girard, J.P. (2009) <i>Proc Natl Acad Sci U S A</i> 106, 9021-6. 6. Lüthi, A.U. et al. (2009) <i>Immunity</i> 31, 84-98. 7. Kakkar, R. et al. (2012) <i>J Biol Chem</i> 287, 6941-8.

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