

12-5001: anti-IL-33 (mouse), mAb (rec.) (blocking) (Bondy-1-1) (preservative free)

Clone Name :	Bondy-1-1
Reactivity :	Mouse
Alternative Name :	Interleukin-33; IL-1F11; NF-HEV
Isotype :	Mouse IgG2b
Immunogen Information :	Mouse recombinant IL-33

Description

Produced without the use of animals. Purified from HEK 293 cell culture supernatant. Recognizes mouse IL-33. Interleukin-33 (IL-33; HF-NEV; IL-1F11), a member of the IL-1 family of cytokines, is expressed by many cell types following pro-inflammatory stimulation and is thought to be released upon cell lysis. IL-33 binds to and signals through ST2 (IL-1R1) and its stimulation recruits MYD88, IRAK, IRAK4 and TRAF6, followed by phosphorylation of ERK1 (MAPK3)/ERK2 (MAPK1), p38 (MAPK14) and JNK. The ability of IL-33 to target numerous immune cell types, like Th2-like cells, mast cells and B1 cells, and to induce cytokine and chemokine production underlines its potential in influencing the outcome of a wide range of diseases, such as arthritis, asthma, atopic allergy & anaphylaxis, cardiovascular disease/atherosclerosis, nervous system diseases and sepsis. Anti-IL-33, mAb (recombinant) (blocking) (Bondy-1-1) is an antibody developed by antibody phage display technology using a human naive antibody gene library. These libraries consist of scFv (single chain fragment variable) composed of VH (variable domain of the human immunoglobulin heavy chain) and VL (variable domain of the human immunoglobulin light chain) connected by a polypeptide linker. The antibody fragments are displayed on the surface of filamentous bacteriophage (M13). This scFv was selected by affinity selection on antigen in a process termed panning. Multiple rounds of panning are performed to enrich for antigen-specific scFv-phage. Monoclonal antibodies are subsequently identified by screening after each round of selection. The selected monoclonal scFv is cloned into an appropriate vector containing a Fc portion of interest and then produced in mammalian cells to generate an IgG like scFv-Fc fusion protein.

Product Info

Amount :	100 µg
Purification :	>=95% (SDS-PAGE)
Content :	Formulation: Liquid. In PBS.
Storage condition :	Stable for at least 1 year after receipt when stored at -20°C.

Application Note

Endotoxin Content <0.01EU/µg purified protein (LAL test; Lonza). Application_noteELISA. Functional: Inhibits the binding of mouse IL-33 to ST2/IL-1RAcP.

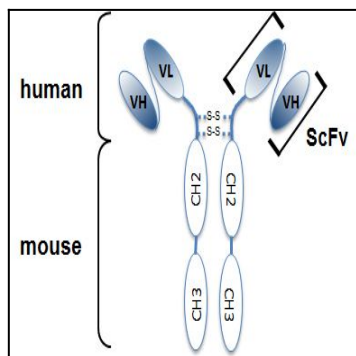


Figure 1: Structure of the recombinant antibody anti-IL-33 (mouse), mAb (rec.) (blocking) (Bondy-1-1) (preservative free) . The single chain variable human fragment (ScFv) selected by antibody phage display technology and specific to the antigen of interest is fused to a mouse IgG2b Fc region.

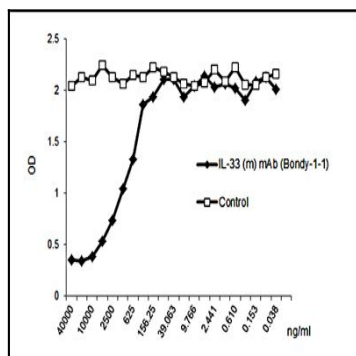


Figure 2: Binding of IL-33 (mouse) to ST2/IL-1RAcP is inhibited by IL-33 (mouse), mAb (rec.) (blocking) (Bondy-1-1) (preservative free) . Methods: IL-33 (mouse) was coated on an ELISA plate at 1µg/ml. IL-33 (mouse), mAb (rec.) (blocking) (Bondy-1-1) (preservative free) or an unrelated mAb (recombinant) (Control) were added (starting at 40µg/ml with a twofold serial dilution) together with 100µl of supernatant of cells containing ST2 (human):Fc/IL-1RAcP (human):Fc. After incubation for 1h at RT, the binding was detected using an anti-Fc human antibody (HRP).