

Monoclonal human antibody against human IL1 α

Product reference: DDX0710

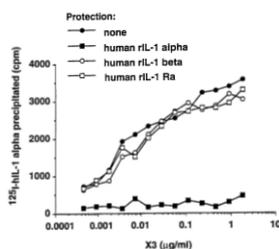
Description

Interleukin-1 (IL-1) defines two polypeptides, IL-1 α and IL-1 β , that possess a wide spectrum of biological effects. Two natural antagonists of IL-1 action have been characterized: the IL-1 receptor antagonist (IL-1Ra) and a soluble form of the type II IL-1 receptor. Neutralizing autoantibodies to IL-1 α have also been detected in sera of healthy individuals and patients with autoimmune or inflammatory diseases. By combining CD40-activation and Epstein-Barr virus-immortalization of B lymphocytes from individuals with circulating anti-IL-1 α , a natural anti-IL-1 α monoclonal autoantibody was developed that bound specifically to human IL-1 α , but not to IL-1 β and IL-1Ra, with a high affinity ($K_d = 1.2 \times 10^{-10}$ M). HuMab X3 inhibited IL-1 α binding to IL-1 receptors and neutralized biological activities of both recombinant and natural forms of IL-1 α . This high affinity neutralizing anti-IL-1 α human autoantibody can function as a third type of IL-1 antagonist. (*Garrone P et al, Mol Immunol 1996, 33 (7-8), 649-58 ; Guillot-Chene P, Lebecque S, Rigal D, Annales Pharmaceutiques Françaises, 06/2009, 67 (3) 182-6.*)

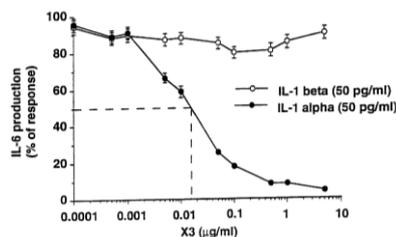
Clone:	HuMab X3
Specificity:	human IL1 α (binds to human IL1 α but not to IL1 β and IL1Ra)
Source:	CD40 activated and EBV immortalized human B lymphocytes
Isotype:	IgG4/Kappa
Purification:	QMA Hyper D ion exchange chromatography
Formulation/size:	Purified: 100 μ g in 200 μ l / 50 μ g in 100 μ l Tris-NaCl pH 8 Coupled: 100 μ g in 200 μ l / 50 μ g in 100 μ l PBS 50% glycerol

Available formats:

Reference N°		Format	Application tested
50 μ g	100 μ g		
DDX0710-P50	DDX0710-P100	Purified	Binding to IL1 α and not to IL1 β or IL1Ra, Neutralizing biological effects of natural and recombinant IL1 α , Inhibition of IL1 α binding to IL1 receptors
DDX0710-A488-50	DDX0710-A488-100	Alexa-fluor®488 (on request)	
DDX0710-A546-50	DDX0710-A546-100	Alexa-fluor®546 (on request)	
DDX0710-A647-50	DDX0710-A647-100	Alexa-fluor®647(on request)	
DDX0710-B-50	DDX0710-B-100	Biotin(on request)	

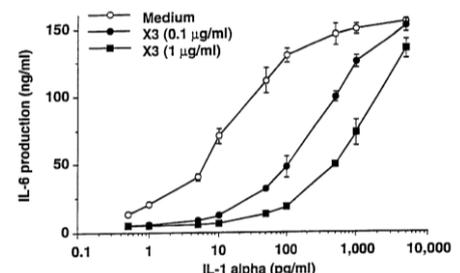


"Cross-Reactivity of the HuMab X3" using excess human IL-1 β , IL-1Ra or IL-1 α to protect against immunoprecipitation by HuMab X3.



Inhibition of human IL-1 α -induced IL-6 production by human synoviocytes by HuMab X3 in the presence of either human IL-1 β or IL-1 α

Garrone Pet al, 1999



Inhibition of human IL-1 α -induced IL-6 production by human synoviocytes by HuMab X3

Usage recommendation:

- *This monoclonal antibody may be used between 5-25 μ g/ml.
- *Optimal dilution should be determined by each laboratory for each application.
- *Coupled antibody: to maintain RT before use.

Aliquot storage conditions:

- 20°C. **KEEP CONTENTS STERILE: no preservative.**
- Purified antibodies:** avoid repeated freeze/thaw cycles.
- Coupled antibodies:** glycerol protects from freezing.

Not for use in Humans. For research purpose only