

## Product datasheet for **DDX0710A647-100**

### IL1 alpha (IL1A) Human Monoclonal Antibody [Clone ID: HuMab X3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	HuMab X3
Recommend Dilution:	<b><u>DDX0710P-50 / DDX0710P-100 Purified:</u></b> Inhibition, Neutralization (Binding to IL1 $\alpha$ and not to IL1 or IL1Ra, Neutralizing biological effects of natural and recombinant IL1 $\alpha$ , Inhibition of IL1 $\alpha$ binding to IL1 receptors. <b><u>DDX0710A488-50 / DDX0710A488-100 Alexa-fluor®488 (on request).</u></b> <b><u>DDX0710A546-50 / DDX0710A546-100 Alexa-fluor®546 (on request).</u></b> <b><u>DDX0710A647-50 / DDX0710A647-100 Alexa-fluor®647 (on request).</u></b> <b><u>DDX0710B-50 / DDX0710B-100 Biotin (on request).</u></b>

#### Usage recommendation:

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

Reactivity:	Human
Host:	Human
Isotype:	IgG4
Clonality:	Monoclonal
Immunogen:	CD40 activated and EBV immortalized human B lymphocytes.
Specificity:	Human IL1 $\alpha$ (binds to Human IL1 $\alpha$ but not to IL1 $\beta$ and IL1Ra).
Formulation:	<b><u>Purified:</u></b> 100 $\mu$ g in 200 $\mu$ l / 50 $\mu$ g in 100 $\mu$ l Tris-NaCl pH 8. <b><u>Coupled:</u></b> 100 $\mu$ g in 200 $\mu$ l / 50 $\mu$ g in 100 $\mu$ l Tris PBS 50% glycerol. Label: Alexa Fluor 647
Concentration:	0.5 mg/ml
Purification:	QMA Hyper D ion exchange chromatography
Conjugation:	Alexa Fluor 647
Gene Name:	interleukin 1 alpha
Database Link:	<a href="#">Entrez Gene 3552 Human</a>



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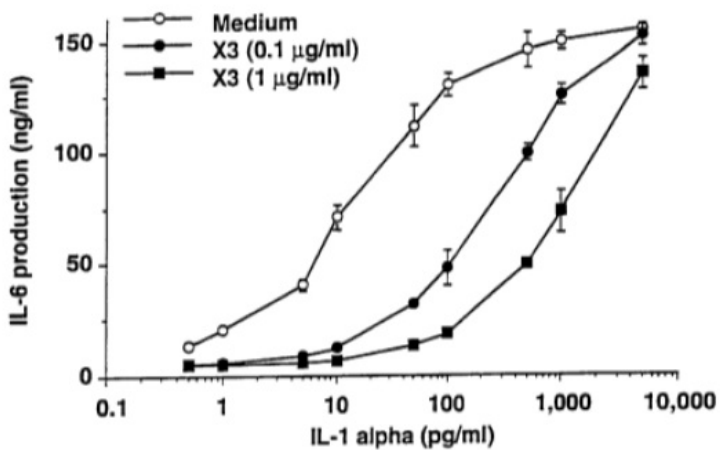
**Background:**

Interleukin-1 (IL-1) defines two polypeptides, IL-1 $\alpha$  and IL-1 $\beta$ , 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 $\alpha$  have also been detected in sera of healthy individuals and patients with autoimmune or inflammatory diseases. By combining CD40-activation and Epstein-Barr virusimmortalization of B lymphocytes from individuals with circulating anti-IL-1 $\alpha$ , a natural anti-IL-1 $\alpha$  monoclonal autoantibody was developed that bound specifically to human IL-1 $\alpha$ , but not to IL-1 $\beta$  and IL-1Ra, with a high affinity ( $K_d = 1.2 \times 10^{-10}$  M).

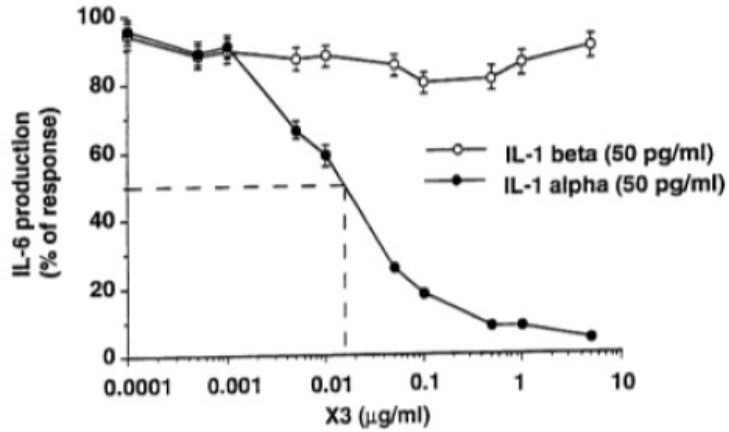
HuMAb X3 inhibited IL-1 $\alpha$  binding to IL-1 receptors and neutralized biological activities of both recombinant and natural forms of IL-1 $\alpha$ . This high affinity neutralizing anti-IL-1 $\alpha$  human autoantibody can function as a third type of IL-1 antagonist. (Garrone P et al, Mol Immunol 1996, 33 (7-8), 649-58 ; Guillot-Chene P, Lebecque S, Rigal D, Annales Pharmaceutiques Françaises, 06/2009, 67 (3) 182-6).

**Synonyms:**

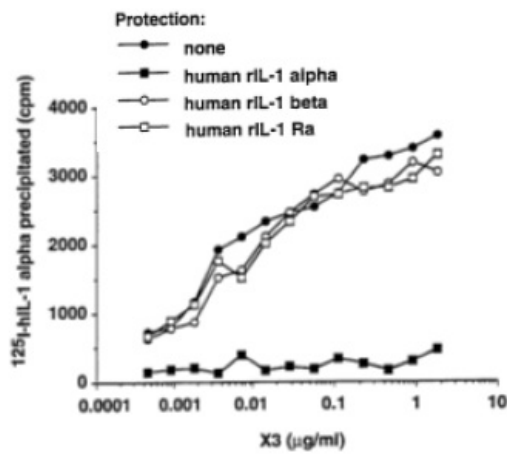
IL-1 alpha, IL1F1, IL1A, Hematopoietin-1

**Product images:**

Inhibition of human IL-1 $\alpha$ -induced IL-6 production by human synoviocytes by HuMab X3



Inhibition of human IL-1 $\alpha$ -induced IL-6 production by human synoviocytes by HuMab X3 in the presence of either human IL-1 $\beta$  or IL-1 $\alpha$



"Cross-Reactivity of the HuMab X3" using excess human IL-1 $\beta$ , IL-1Ra or IL-1 $\alpha$  to protect against immunoprecipitation by HuMab X3.