**Anti-hTNF-α-hIgA2**
Neutralizing human IgA2 monoclonal antibody against human TNF-α
Catalog code htnfa-mab7
https://www.invivogen.com/anti-htnfa-higa2

For research use only, not for diagnostic or therapeutic use
Version 19H22-NJ

**PRODUCT INFORMATION**

Contents: 100 µg purified anti-hTNF-α-hIgA2 antibody, provided azide-free and lyophilized.
Target: Human tumor necrosis factor-alpha
Isotype: Human IgG1
Source: Chinese hamster ovary (CHO) cells
Purification: Affinity chromatography with peptide M
Formulation: 0.2 µm filtered solution in TRIS buffer with glycine, saccharose and stabilizing agents.
Tested applications: Neutralization of hTNF-α signaling.

**Antibody resuspension**
*Note: Ensure you see the lyophilized pellet before resuspension.*
Add 1 ml of sterile water to obtain a concentration of 0.1 mg/ml.

**Storage and stability**
- Product is shipped at room temperature. Store lyophilized antibody at -20°C. Lyophilized product is stable for 1 year when properly stored.
- Reconstituted antibody is stable for 1 month when stored at 4°C and for 6 months when stored at -20°C. Avoid repeated freeze-thaw cycles.

**Quality control**
- Human IgA2 isotype has been confirmed by ELISA.
- The neutralization of hTNF-α signaling pathway has been confirmed using cellular assays with the HEK-Blue™ TNF-α reporter cells.
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK293 cells stably expressing an NF-κB reporter gene.

**DESCRIPTION**
Anti-hTNF-α-hIgA2 is a neutralizing monoclonal antibody (mAb) featuring the constant region of the human IgA2 (hIgA2) isotype and the variable region of adalimumab, a fully human therapeutic mAb that targets human tumor necrosis factor-alpha (hTNF-α). TNF-α is a pleiotropic cytokine that notably induces NF-κB-mediated production of pro-inflammatory cytokines. The variable region of adalimumab blocks the interaction of TNF-α with its receptors TNFR1 and TNFR2, thereby downregulating the inflammatory responses associated with autoimmune diseases, such as rheumatoid arthritis and Crohn’s disease. The hIgA2 isotype plays a critical role in mucosal immunity. It is highly resistant to enzymatic degradation by bacterial proteases, due to a short hinge region. Human IgA2 displays low potency for Fc-mediated antibody-dependent cellular cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCP), and it does not mediate complement-dependent cytotoxicity (CDC). Anti-hTNF-α-hIgA2 was generated by recombinant DNA technology. It is produced in CHO cells and purified by affinity chromatography with peptide M.

**APPLICATION**
Anti-hTNF-α-hIgA2 is a neutralizing antibody that blocks cellular activation induced by human TNF-α (hTNF-α). The concentration of antibody required to neutralize hTNF-α activity is dependent on the cytokine concentration, cell type and growth conditions.

**Neutralization assay**
InvivoGen has determined the concentration range for this antibody to block recombinant hTNF-α signaling using HEK-Blue™ TNF-α cells. These cells are HEK293 cells stably expressing an NF-κB-inducible SEAP (secreted embryonic alkaline phosphatase) reporter gene.

**RELATED PRODUCTS**

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<td>HEK-Blue™ TNF-α Cells</td>
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