

## Product datasheet for **TA387956**

### IGHM Rabbit Polyclonal Antibody

#### Product data:

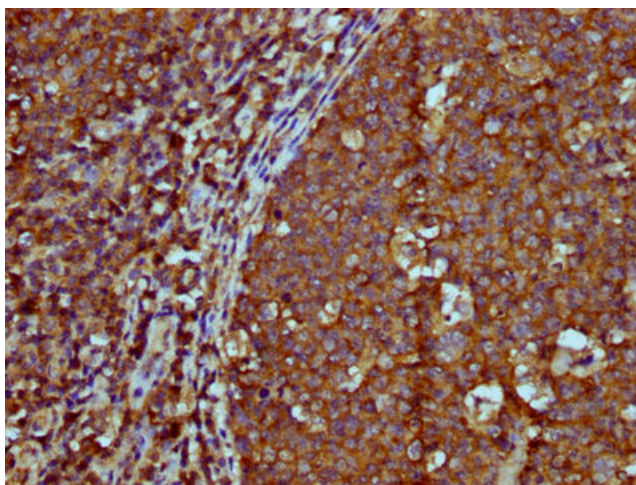
Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Recommended dilution: WB:1:500-1:5000, IHC:1:500-1:1000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant Human Immunoglobulin heavy constant mu protein (45-178AA)
Formulation:	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
Concentration:	lot specific
Purification:	>95%, Protein G purified
Conjugation:	Unconjugated
Storage:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Stability:	1 year from dispatch.
Database Link:	<a href="#">P01871</a>



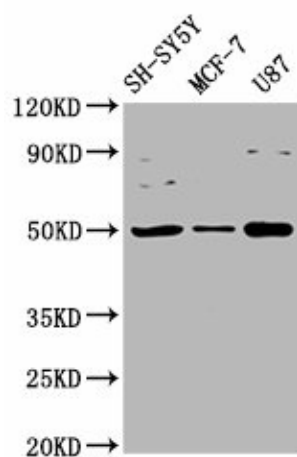
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**Background:**

Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins-secreting plasma cells. Secreted immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens (PubMed:22158414, PubMed:20176268). The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen (PubMed:17576170, PubMed:20176268). IgM antibodies play an important role in primary defense mechanisms. They have been shown to be involved in early recognition of external invaders like bacteria and viruses, cellular waste and modified self, as well as in recognition and elimination of precancerous and cancerous lesions. The membrane-bound form is found in the majority of normal B-cells alongside with IgD. Membrane-bound IgM induces the phosphorylation of CD79A and CD79B by the Src family of protein tyrosine kinases. It may cause death of cells by apoptosis. It is also found in soluble form, which represents about 30% of the total serum immunoglobulins where it is found almost exclusively as a homopentamer. After the antigen binds to the B-cell receptor, the secreted form is secreted in large amounts (PubMed:3137579, PubMed:16895553).

**Product images:**

IHC image of TA387956 diluted at 1:600 and staining in paraffin-embedded human tonsil tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

**Western Blot**

Positive WB detected in: SH-SY5Y whole cell lysate, MCF-7 whole cell lysate, U87 whole cell lysate

All lanes: IGHM antibody at 3.4 $\mu$ g/ml

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 50, 52 kDa

Observed band size: 50 kDa