

# Human CD47 Antibody

***Purified in vivo GOLD™ Functional Grade***

## Monoclonal Antibody

### Product Information

**Product No.:** C2202

**Clone:** B6H12

**RRID:** AB\_2829288

**Isotype:** Mouse IgG1 κ

**Storage:** Sterile 2 to 8°C

## Product Description

### Specificity:

Clone B6H12 recognizes an epitope on human CD47.

### Antigen Distribution:

CD47 is expressed on leukocytes, platelets, erythrocytes, epithelial cells, endothelial cells, fibroblasts, and is overexpressed in ovarian cancer, as well as many different tumor cells.

### Background:

CD47 is a 50 kD transmembrane protein receptor to the Ig superfamily that can manifest in four isoforms, differing only in the length of their cytoplasmic tail. CD47 is involved in various cellular processes including apoptosis, proliferation, adhesion, and migration, and plays a key role in immune and angiogenic responses. CD47 was first identified as a tumor antigen on human ovarian cancer and its expression has subsequently been found on multiple human tumor types such as acute myeloid leukemia (AML), chronic myeloid leukemia, acute lymphoblastic leukemia (ALL), non-Hodgkin's lymphoma (NHL), multiple myeloma (MM), bladder cancer, and pediatric and adult brain tumors. CD47 interacts with membrane integrins, TSP-1, and SIRPα. The CD47/SIRPα interaction results in the inhibition of phagocytosis by macrophages thus, allowing cancer cells to multiply unchecked. Anti-CD47 antibody is a potential therapeutic target in a variety of cancers and for the treatment of pulmonary fibrosis. Anti-CD47 antibody treatment not only facilitates macrophage phagocytosis of cancer, but also promotes the activation of cancer-specific lymphocytes by acting as a beacon, flagging cancer cells which now display altered proteins to which the immune system can react.

### Known Reactivity Species:

Human

### Format:

Purified in vivo GOLD™ Functional Grade

### Immunogen:

Purified Recombinant Human CD47 (>98%)

### Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

### Purity

≥95% monomer by analytical SEC, >95% by SDS Page

**Endotoxin**

< 1.0 EU/mg as determined by the LAL method

**Storage and Stability**

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at  $\leq -70^{\circ}\text{C}$ .

**Avoid Repeated Freeze Thaw Cycles.**

**Product Preparation**

Functional grade preclinical antibodies are manufactured in an animal free facility using in vitro cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

**Country of Origin**

USA