

Apitegromab Biosimilar - Research Grade

Product Code: ICH5228

More Information

Species Reactivity: Human

Target: pro-MSTN

Concentration: >1mg/ml

Isotype: IgG4 - lambda

Host: CHO Cells

product name H2: Apitegromab Biosimilar - Research Grade

Antibodies against the same target: [Domagrozumab Biosimilar - Research Grade \(ICH5485\)](#), [Landogrozumab Biosimilar - Research Grade \(ICH5624\)](#), [Stamulumab Biosimilar - Research Grade \(ICH5883\)](#), [Trevogrumab Biosimilar - Research Grade \(ICH5943\)](#)

Sequence: <https://www.imgt.org/mAb-DB/>

Buffer: ICH3002

UniProt: O14793

Shipping Conditions: Blue ice

background: ICH5228 is an unconjugated, non-therapeutic recombinant analog of apitegromab, supplied for research use only. Apitegromab is a fully human IgG4-lambda monoclonal antibody that selectively engages the pro- and latent (inactive) precursor forms of myostatin (GDF-8) rather than the mature, active growth factor. This biosimilar reproduces that antigen-binding specificity, giving researchers a well-defined tool to interrogate myostatin activation biology without using clinical-grade material. It is useful as a positive/reference binder in ELISA, SPR/BLI affinity work, flow and immunoassay

development, epitope-competition studies, and as an isotype-matched control arm in muscle-growth and TGF-beta-superfamily signaling experiments. Because it neutralizes upstream precursor forms rather than the active ligand, it supports mechanistic comparisons against active-myostatin or receptor-directed inhibitors in vitro and in preclinical models. Material is offered at research grade with low endotoxin (typically 1 EU/mg; ultra-low 0.5 EU/mg options), in bulk mg-to-gram quantities suitable for assay standardization and in-vivo-standard preclinical work. It is not the clinical drug and is not intended for human or veterinary use. Myostatin (GDF-8; UniProt O14793) is a TGF-beta-superfamily ligand and a potent negative regulator of skeletal muscle mass. It is synthesized as a precursor that is cleaved but remains non-covalently associated with its N-terminal prodomain, forming latent (pro-) myostatin held inactive in the extracellular matrix and circulation. Sequential proteolysis, notably by tolloid/BMP-1 family metalloproteases, liberates the mature growth factor dimer. Active myostatin then signals through activin type II receptors (ActRIIB/ActRIIA) with type I receptors (ALK4/ALK5) to phosphorylate SMAD2/3, driving transcriptional programs that restrain myofiber growth and promote atrophy. The pro/latent forms are the upstream, tissue-localized reservoir controlling how much active ligand is released, making precursor-selective targeting mechanistically distinct from neutralizing mature myostatin or blocking the receptor.

Other names: GDF-8, Myostatin, Growth/differentiation factor 8, MSTN

Specificity: Detects human pro-MSTN

Purification Method: This monoclonal antibody was purified using Protein A

Formulation: Sterile, preservative-free, solution in PBS. BSA and Azide free.

Purity: >95% by SDS-PAGE

Endotoxin: ≤ 1.0 EU/mg as determined by the LAL method

Storage: This biosimilar is stable when stored at 2-8°C. For longer term storage (> 3 months) it is recommended to store this antibody at -20°C or -70°C.

Applications: Functional Assays

Application Notes: This biosimilar is for research use only (RUO): it is not for diagnostic or therapeutic procedures and cannot be purchased by patients.



Use: Products are for research use only. Not for use in diagnostic or therapeutic procedures.

Delivery Time: 4 weeks