Technical Data Sheet

RecombiMAb anti-mouse CD44

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Lot Specific Information

Lot Number:	**Lot Specific***
Volume:	**Lot Specific***
Concentration:	**Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein:	**Lot Specific***
Endotoxin:	**Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**CP253**
Clone:	**KM201-CP253**
Isotype:	Mouse IgG2a, κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Bone marrow-derived stromal cell clone BMS2
Reported Applications:	*in vivo* CD44-HA blockade * *in vitro* CD44-HA blockade * *ex vivo* CD44-HA blockade * *in vitro* organoids/organ-on-chip * *in vitro* functional assay* Flow cytometry* Immunohistochemistry- paraffin* Immunohistochemistry-frozen* Immunofluorescence* Immunoprecipitation* Western blot* *reported for the original KM201 antibody (rat IgG1 kappa)
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from mammalian cell supernatant in an animal-free facility
Purification:	Protein G
Aggregation:	<5% Determined by SEC
Molecular Weight:	150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma

Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The KM201-CP253 antibody is a recombinant mouse IgG2a k isotype chimeric variant that retains the same antigen-binding regions as KM201 (rat IgG1κ), which is well established for recognizing mouse CD44. Unlike other anti-CD44 clones such as IM7, which recognizes an epitope outside the hyaluronan (HA)-binding domain, and KM703, which does not inhibit CD44–HA binding, the KM201 antibody is well known for direct binding to an epitope near or within the N-terminal HA-binding domain. This specific binding is often correlated with its HA-CD44 signaling blockade efficacy. CD44, also known as Hermes, HCAM, and Pgp-1, is a cell surface glycoprotein that is widely expressed on leukocytes and many endothelial and mesenchymal cells, with expression varying by cell type and physiological or pathological state. CD44 is involved in cell adhesion, migration, and interactions with the extracellular matrix (ECM), and it is involved in lymphocyte activation, recirculation and homing, and hematopoiesis. CD44's principal ligand is HA, but it also interacts with proteins such as osteopontin and collagens and can serve as a cell-surface docking molecule for certain MMPs. CD44-dependent interactions play an important role in inflammation and tissue organization. The original KM201 antibody has been used to inhibit CD44–HA interactions in experimental studies and has been reported to reduce arthritis severity in mouse models, supporting evaluation of KM201-CP253 in research involving CD44-mediated adhesion and inflammation. From an engineering perspective, the KM201-CP253 antibody retains the exact variable domain sequences of KM201, while its constant region has been switched to mouse IgG2a, κ, for better compatibility with murine models. Species-matched chimeric antibodies support repeat and long-term dosing studies by reducing anti-drug antibody (ADA) responses that can accelerate antibody clearance, compromise sustained target neutralization, and confound interpretation of in vivo efficacy and safety findings. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results than hybridoma-derived antibodies. In the case of KM201-CP253, the mouse IgG2a Fc makes it a logical choice for evaluating Fcγ receptor–mediated depletion of CD44-expressing cells in vivo and for distinguishing cell-clearance effects from HA-binding blockade. However, the functional activity and Fc-dependent effects of KM201-CP253 should be established experimentally, because the parental KM201's findings are a rationale for evaluating KM201-CP253, not proof of its functional equivalence.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit ?utm_source=cr9k1b#tab_references or scan the QR code below.

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