Technical Data Sheet

InVivoMAb anti-mouse CD44

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

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

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

Product Information

Catalog Number:	**BE0445**
Clone:	**KM703**
Isotype:	Rat IgG2a, κ
Recommended Isotype Control(s):	InVivoMAb rat IgG2a isotype control, anti-trinitrophenol
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Bone marrow-derived stromal cell clone BMS2
Reported Applications:	*in vitro* functional assays Flow cytometry Immunohistochemistry (frozen) Immunoprecipitation
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/μg) Determined by LAL gel clotting assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtered
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
RRID:	
Molecular Weight:	150 kDa

Description

The KM703 monoclonal antibody recognizes CD44, a ubiquitously expressed cell-surface receptor glycoprotein that acts as the main receptor for hyaluronan (HA). The murine CD44 gene exhibits polymorphism, and it has two allelic forms, PGP-1.1 and PGP-1.2, and the expressed product is Pgp-1.1 (Ly-24.1). CD44 is also called Ly-24 or Pgp1, and it interacts with several proteins, including HA, collagen, laminin, fibronectin, PKN2, TIAM1/2, UNC119, PDPN, RDX, EZR, MSN, EGFR, CD74, etc. Through its ectodomain, CD44 engages with extracellular matrix (ECM) components, namely HA, collagen, growth factors, cytokines, or proteases, thereby assembling to serve as a platform for signal transduction. CD44 also engages with intra-cellular protein complexes containing receptor kinases and membrane proteases through its cytoplasmic domain. CD44 plays a significant role in cell-cell and cell-matrix interactions, cell adhesion and migration (cell motility), and facilitates the cells to sense and respond to changes in the tissue microenvironment. CD44 can also act as a coreceptor for growth factors and cytokines, facilitating their cell signaling pathways. In cancer research, CD44 is often considered a common cancer stem cell marker, and knockout or knockdown of CD44 correlates with enhanced cancer metastasis. The KM703 antibody does not recognize the HA binding site of CD44, and it has been shown that the KM703 antibody doesn't inhibit CD44-HA binding in W279 and BW5147 cells. Researchers often use the KM703 antibody as a non-HA-blocking antibody in their in vitro functional experiments.

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

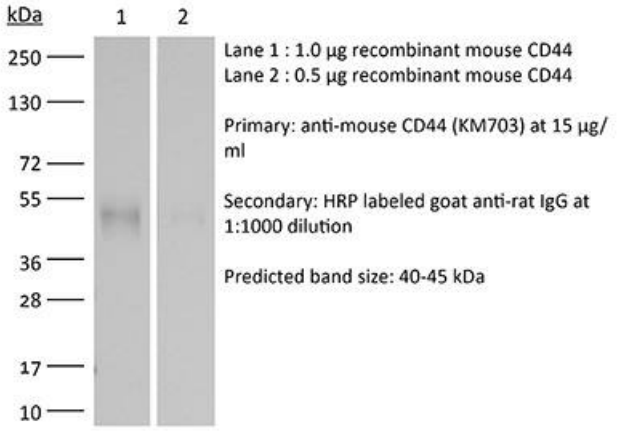
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0445?bxcs=9k1b3a#tab_references or scan the QR code below.

Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail technicalservice@bioxcell.com.



Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com

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