

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Gefahrgutzuschlag
- Expressversand

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Anti-ADAMTS5 [7B4] Standard Size, 200 µg, Ab03226-10.3 View online

# Anti-ADAMTS5 [7B4] Standard Size Ab03226-10.3

This antibody was created using our proprietary Fc Silent<sup>™</sup> engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format for improved compatibility with existing reagents assays and techniques.

Isotype and Format: Human IgG1, Fc Silent<sup>™</sup>, Kappa

#### Clone Number: 7B4

**Alternative Name(s) of Target:** A disintegrin and metalloproteinase with thrombospondin motifs 5; Aggrecanase; ADAM-TS 5; ADAM-TS5; ADAMTS-5; A disintegrin and metalloproteinase with thrombospondin motifs 11; ADAM-TS 11; ADAMTS-11; ADMP-2; Aggrecanase-2; 7B4.1E11

**UniProt Accession Number of Target Protein:** Q9UNA0

Published Application(s): crystallography, in vivo, inhibition, IHC

Published Species Reactivity: Human, Mouse

#### Immunogen:

**Specificity:** The antibody is specific for ADAMTS5 and it recognises an epitope within the catalytic and disintegrin domains (amino acids 262-576). ADAMTS-5 is a protease involved in cartilage degradation in human OA patients.

**Application Notes:** The antibody was characterized for binding affinity, species cross-reactivity and domain specificity. The antibody showed inhibitory potency (IC50) of 41.26 nM and humanization improved potency to 11.12 nM. The affinity of the original antibody and humanized version was measured, Kd= 0.280 nM and 0.205 nM respectively. Epitope mapping and selective binding to purified recombinant ADAMS5 were profiled by DELFIA. Selective binding of the antibody is demonstrated by immunocytochemistry using ADAMTS-5 and CHO cells. The antibody inhibited aggrecanolysis from human OA cartilage explants. The ability of the antibody to engage its target in vivo was assessed using labeled antibody in a preclinical OA model and whole body imaging was used to monitor biodistribution and cartilage penetration. The antibody treatment suppressed joint disease severity and mechanical allodynia. The crystal structure of the Fab fragment was determined (Larkin et al., 2015; PMID: 25800415).

**Antibody First Published in:** Larkin et al. Translational development of an ADAMTS-5 antibody for osteoarthritis disease modification. Osteoarthritis Cartilage. 2015 Aug;23(8):1254-66. PMID:25800415 **Note on publication:** The paper describes the generation and characterization of the antibody.

## **Product Form**

**Size:** 200 μg Purified antibody. **Purification:** Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at - 20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.