## Alpha-1 Antichymotrypsin Monoclonal Mouse Antibody (AACT/1451 + AACT/1452)

## **Product Description**

Alpha-1 Antichymotrypsin (AACT) is a plasma protease inhibitor synthesized in the liver as a single glycopeptide chain. In human, the normal serum level of AACT is about one-tenth that of alpha-1-antitrypsin (AAT), with which it shares nucleic acid and protein sequence homology. Both are major acute phase reactants; their concentrations in plasma increase in response to trauma, surgery and infection. Elevated levels of AACT are widely, but not universally, reported in the cerebrospinal fluid and plasma of AD patients. Prostate-specific antigen (PSA) and its SDS-stable complex with AACT are in widespread use as markers for the diagnosis of prostate cancer. AACT deficiency may also be a possible cause of chronic liver disease. AACT antibody reacts with histiocytes and histiocytic neoplasms. It is widely used to identify histiocytes and tumors derived from them. Acinar tumors of the pancreas and salivary gland may also exhibit AACT positivity.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 1453, Anti-Alpha-1 Antichymotrypsin (AACT/1451 AACT/1452)

## Product attributes

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Product attributes				
Antibody number	453			
research-areas	Cancer			
Antibody reactivity (target)	Alpha-1 Antichymotrypsin			
Antibody type	Primary			
Host species	Mouse			
Clonality	Monoclonal			
<b>Clone</b> AACT/1451 + AACT/1452				
Isotype	lgG1			
Molecular weight	weight 65-76 kDa			
Synonyms	Alpha-1-antichymotrypsin; Serpin A3; SERPINA3; AACT; ACT; Cell growth-inhibiting gene 24/25 protein; Growth inhibiting protein 24; Growth inhibiting protein 25; Serine (or cysteine) proteinase inhibitor clade A member 3			
Human gene symbol	ERPINA3			
Entrez gene ID	12			
SwissProt	P01011			
Unigene	534293; 710488			
Immunogen	Recombinant human Antichymotrypsin (AACT) protein fragment (aa49-187) (exact sequence is proprietary)			
Verified antibody applications	IHC (FFPE) (verified)			
	Secreted (extracellular)			
Antibody target cellular localization				
	Secreted (extracellular) Human			
localization				
localization Species reactivity	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells(%).1 mL, Optimal dilution for a specific application should be			
localization Species reactivity Antibody application notes	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/mllion cells/0.1 mL, Optimal dilution for a specific application should be determined by user			
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localization  Species reactivity  Antibody application notes  Positive control  Shipping condition  Storage Conditions  Shelf life	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/mllilon cells/0.1 mL, Optimal dilution for a specific application should be determined by user  HeLa Cells. Tonsil, Pancreas or Histliccytoma.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended			
localization Species reactivity Antibody application notes  Positive control Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  HeLa Cells. Tonsil, Pancreas or Histiocytoma.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA, Purified: 1 mg/mL in PBS/0.05% ESA, Puri			
localization  Species reactivity  Antibody application notes  Positive control  Shipping condition  Storage Conditions  Shelf life  Regulatory status  Antibody/conjugate formulation	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/mL other blotting 0.5-1 ug/mL western blotting 0.5-1 ug/mL, Poptimal dilution for a specific application should be determined by user  HeLa Cells. Tonsil, Pancreas or Histiocytoma.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.05% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% BSA/0.76e: 1 mg/mL in PBS without azide			
localization  Species reactivity  Antibody application notes  Positive control  Shipping condition  Storage Conditions  Shelf life  Regulatory status  Antibody/conjugate formulation  Antibody research areas	Human  Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Immunofluorescence 0.5-1 ug/mL Western blotting 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/mllillon cells/0.1 mL, Optimal dilution for a specific application should be determined by user  HeLa Cells. Tonsil, Pancreas or Histiocytoma.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  Cancer  Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in			

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Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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