

# 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 [order@biotium.com](mailto:order@biotium.com) 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

|                                       |  |
|---------------------------------------|--|
| Antibody number                       | #1453  |
| research-areas                        | Cancer   |
| Antibody reactivity (target)          | Alpha-1 Antichymotrypsin   |
| Antibody type                         | Primary  |
| Host species                          | Mouse  |
| Clonality                             | Monoclonal   |
| Clone                                 | AACT/1451 + AACT/1452  |
| Isotype                               | IgG1   |
| Molecular 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                     | SERPINA3   |
| 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)  |
| Antibody target cellular localization | Secreted (extracellular)   |
| Species reactivity                    | Human  |
| Antibody application notes            | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunohistochemistry (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 |
| Positive control                      | HeLa Cells. Tonsil, Pancreas or Histiocytoma.  |
| Shipping condition                    | Room temperature   |
| Storage Conditions                    | Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C  |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended  |
| Regulatory status                     | For research use only (RUO)  |
| Antibody/conjugate formulation        | 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/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  |
| Antibody research areas               | Cancer   |
| Product origin                        | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.  |
| Cell/tissue expression                | Monocytes/macrophages  |
| Tumor expression                      | Leukemia/lymphoma  |

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