

# Alpha-1 Antitrypsin Monoclonal Mouse Antibody (AAT/1378)

## Product Description

This antibody recognizes a protein of 54 kDa, which is identified as Alpha-1 antitrypsin (AAT). AAT is secreted and is a serine protease inhibitor whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. Defects in this gene can cause emphysema or liver disease. 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 1378, Anti-Alpha-1 Antitrypsin (AAT/1378)**

### Product attributes

|                                       |                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| research-areas                        | Cancer, Inflammation                                                                                                                                                                                                                                                                                                                                                       |
| Antibody number                       | #1378                                                                                                                                                                                                                                                                                                                                                                      |
| Antibody reactivity (species)         | Alpha-1 Antitrypsin                                                                                                                                                                                                                                                                                                                                                        |
| Antibody type                         | Primary                                                                                                                                                                                                                                                                                                                                                                    |
| Host species                          | Mouse                                                                                                                                                                                                                                                                                                                                                                      |
| Clonality                             | Monoclonal                                                                                                                                                                                                                                                                                                                                                                 |
| Clone                                 | AAT/1378                                                                                                                                                                                                                                                                                                                                                                   |
| Isotype                               | IgG1                                                                                                                                                                                                                                                                                                                                                                       |
| Molecular weight                      | 54 kDa                                                                                                                                                                                                                                                                                                                                                                     |
| Synonyms                              | Alpha-1 antitrypsin; SERPINA1; Alpha-1 protease inhibitor; Alpha-1 antiproteinase; AAT; Serpin A1                                                                                                                                                                                                                                                                          |
| Human gene symbol                     | SERPINA1                                                                                                                                                                                                                                                                                                                                                                   |
| Entrez gene ID                        | 5265                                                                                                                                                                                                                                                                                                                                                                       |
| SwissProt                             | P01009                                                                                                                                                                                                                                                                                                                                                                     |
| Unigene                               | 525557                                                                                                                                                                                                                                                                                                                                                                     |
| Immunogen                             | Recombinant human Alpha-1-Antitrypsin (AAT) protein fragment (exact sequence is proprietary)                                                                                                                                                                                                                                                                               |
| Verified antibody applications        | IHC (FFPE) (verified), WB (verified)                                                                                                                                                                                                                                                                                                                                       |
| Antibody target cellular localization | Secreted (extracellular)                                                                                                                                                                                                                                                                                                                                                   |
| Species reactivity                    | Human                                                                                                                                                                                                                                                                                                                                                                      |
| Antibody application notes            | 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, Western blotting 0.5-1 ug/mL, Optimal dilution for a specific application should be determined by user |
| Positive control                      | HepG2 Cells, Tonsil, Hepatocellular Carcinoma 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, Inflammation                                                                                                                                                                                                                                                                                                                                                       |
| Tumor expression                      | Liver cancer                                                                                                                                                                                                                                                                                                                                                               |

| 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>  |
| 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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