# Human GASP-1/WFIKKN2 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2070X
100 µg

## DESCRIPTION

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| **Species Reactivity** | Human |
| **Specificity** | Detects human GASP-1/WFIKKN2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human GASP-2 is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human GASP-1/WFIKKN2<br>Leu35-His576<br>Accession # Q8TEU8 |
| **Conjugate** | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

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| **Neutralization** | Optimal dilution of this antibody should be experimentally determined. |
| **Western Blot** | Optimal dilution of this antibody should be experimentally determined. |
| **Immunoprecipitation** | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

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| **Shipping** | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied |

## BACKGROUND

Growth and differentiation factor-associated serum protein-1 (GASP-1) was isolated in a screen to identify proteins in mice that copurify with myostatin (GDF-8), a potent negative regulator of skeletal muscle mass (1). The GASP-1 cDNA encodes a 571 amino acid protein that contains a 29 amino acid signal sequence and is comprised of many conserved domains: WAP, follistatin/Kazal, immunoglobulin, two tandem Kunitz, and netrin (1). Two related human proteins which contain the same domain structure are called WFIKKN (based on the presence and order of these conserved domains) and WFIKKNRP (WFIKKN-related protein) (2). Mouse GASP-1 is homologous to human WFIKKNRP and mouse GASP-2 to human WFIKKN. Human GASP-1 is the same protein as WFIKKNRP.

WAP, follistatin, Kazal and netrin domains are all implicated in protease inhibition, and these proteins may be multivalent protease inhibitors (3). GASP-1 and -2 show distinct expression patterns both in the developing fetus and the adult. In the developing fetus, GASP-1 expression is highest in the brain, skeletal muscle, thymus and kidney while GASP-2 is abundant in the lung, skeletal muscle and liver (4). In the adult, GASP-1 is primarily expressed in the ovary, testis, and brain while GASP-2 is in the pancreas, liver, and thymus (4). GASP-1 inhibits myostatin and the highly related protein, GDF-11, but not Activin or TGF-β *in vitro* (1). In addition, GASP-1 binds directly but independently to both mature myostatin and the myostatin propeptide (1). By amino acid sequence, human GASP-1 is 90% and 55% identical to mouse GASP-1 and human GASP-2, respectively.

## PRODUCT SPECIFIC NOTICES

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