



## Product Information

### Monoclonal Anti-ASC-2

#### Clone A3C1

produced in mouse, purified immunoglobulin

Product Number **A5355**

#### Product Description

Monoclonal Anti-ASC-2 (mouse IgG1 isotype) is derived from the hybridoma A3C1 produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with a C-terminal recombinant fragment of human ASC-2 (Activating Signal Cointegrator-2) (amino acids 719-860).<sup>1</sup> The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-ASC-2 (Activating Signal Cointegrator-2) recognizes human ASC-2. The antibody may be used in various immunochemical techniques including immunoblotting<sup>1, 2</sup> (~220 kDa),<sup>1</sup> immunoprecipitation,<sup>3</sup> immunocytochemistry.

Nuclear receptor protein families are transcription activators that bind to specific DNA sequences named hormone response elements. These proteins contain two major transcription activation domains in their N- and C-terminal ends (AF1 and AF2 respectively). The transcription activity of AF1 is ligand independent, while the activity of the AF2 domain is ligand dependent. The AF2 domain undergoes a major conformational change upon ligand binding and interacts with many co activators. Among them are the p160 family members, CBP/p300, p/CAF, TRAP/DRIP, and ASC-2 (activating signal cointegrator 2). These proteins are a bridge between the nuclear receptors and the basal transcription apparatus, and may also remodel the chromatin structure.<sup>4, 5</sup> ASC-2 (also known as AIB3, TRBP, TRAP250, NRC and PRIP) protein is a coactivator that can interact with different proteins through its nuclear receptor boxes in its N- or C-terminus. ASC-2 exists in a steady-state complex of ~2 mDa in size (ASC-2 complex, ASCOM). This complex contains different proteins among them: retinoblastoma-binding protein RBQ-3,  $\alpha/\beta$  tubulins, ALR-1, ALR-2, HALR, and ASH2. This complex of proteins shows H3-lysine 4 methylation activity upon ligand binding.<sup>1-3</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~2 mg/mL

#### Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

Immunoblotting: a working antibody concentration of 0.5-1  $\mu$ g/mL is recommended using HeLa total cell extract.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

#### References

1. Lee, S.K., et al, *J. Biol. Chem.*, **274**, 34283-34293 (1999).
2. Lee, S.K., et al., *Mol. Endocrinol.*, **14**, 915-925 (2000).
3. Goo, Y.H., et al., *Mol. Cell. Biol.*, **23**, 140-149 (2003).
4. Hermanson, O., et al., *Trends. Endocrinol. Metab.*, **13**, 55-60 (2002).
5. Magelsdorf, D.J., et al., *Cell*, **83**, 835-839 (1995).

KAA/EK 04/06

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.