

New Product Highlights

Anti-ASAP1/Centaurin β 4: A marker for ADP-ribosylation factor GTPase activating protein (ARF-GAP)

The ADP-ribosylation factor (ARF) family of GTP binding proteins is involved in the regulation of membrane trafficking and the actin cytoskeleton [1,2]. ASAP1, also known as DEF-1 or centaurin β 4, is a 130 kDa ADP-ribosylation factor GTPase activating protein (ARF-GAP) [3]. ARFs require ARF-GAPs that stimulate their GTPase activity. ASAP1 belongs to a family of related ARF-GAP proteins involved in the regulation of the actin cytoskeleton and cell migration [4].

ASAP1 binds ARF1 and ARF5 with only modest activity toward ARF6. It also binds to other known regulators of the actin cytoskeleton, such as tyrosine kinase Src, Crk, FAK and phosphatidylinositol-4,5-bisphosphate (PIP₂) [3,5-7]. ASAP1 is phosphorylated on tyrosine residues in cells expressing activated Src. ASAP1a and ASAP1b are two variants formed by alternative splicing of the ASAP1 gene. ASAP1 localizes to focal adhesions and cycles with focal adhesion proteins when cells are stimulated to move. By directly interacting with both ARFs and focal adhesion proteins such as paxillin and FAK, ASAP1 plays an important role in the regulation of focal adhesion assembly and cytoskeletal remodeling.

Sigma-RBI has developed two rabbit polyclonal antibodies to ASAP1. **Anti-ASAP1/Centaurin β 4 (ED-20)** (Prod. No. [A 4227](#)) was produced using a peptide corresponding to amino acids 1128-1147 located near the C-terminus of mouse ASAP1, while **Anti-ASAP1/Centaurin β 4 (VG-17)** (Prod. No. [A 4102](#)) was produced using a peptide corresponding to amino acids 962-978 of mouse ASAP1. Antibodies to ASAP1 recognize human and mouse ASAP1/Centaurin β 4. Applications include immunoblotting and immunofluorescence.

References

1. Moss, J. and Vaughan, M., *J. Biol. Chem.*, **270**, 12327-12330 (1995).
2. Donaldson, J.G. and Klausner, R.D., *Curr. Opin. Cell Biol.*, **6**, 527-532 (1994).
3. Brown, M.T., et al., *Mol. Cell. Biol.*, **18**, 7038-7051 (1998).
4. Turner, C.E., et al., *Curr. Opin. Cell Biol.*, **13**, 593-599 (2001).
5. Kam, J.L., et al., *J. Biol. Chem.*, **275**, 9653-9663 (2000).

Related Antibodies

- [A 4594](#) **Anti-ADP Ribosylation Factor 1/3 (ARF1/3)** (sheep)
- [F 2918](#) **Anti-Focal Adhesion Kinase (p¹²⁵FAK)** (rabbit)
- [F 9051](#) **Anti-phospho-FAK (pSer⁷²²)** (rabbit)
- [F 9301](#) **Anti-phospho-FAK (pSer⁹¹⁰)** (rabbit)
- [F 7926](#) **Anti-phospho-FAK (pTyr³⁹⁷)** (rabbit)
- [F 8051](#) **Anti-phospho-FAK (pTyr⁴⁰⁷)** (rabbit)
- [F 8801](#) **Anti-phospho-FAK (pTyr⁵⁷⁶)** (rabbit)
- [F 8926](#) **Anti-phospho-FAK (pTyr⁵⁷⁷)** (rabbit)
- [F 9176](#) **Anti-phospho-FAK (pTyr⁸⁶¹)** (rabbit)
- [P 1093](#) **Monoclonal Anti-Paxillin, Clone PXC-10** (mouse)

