

## Sra 1

**Cat.No. 309 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)**

### Data Sheet

|                            |   |
|----------------------------|---|
| Reconstitution/<br>Storage | 100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. |
| Applications               | <b>WB:</b> 1 : 100 up to 1 : 2000 (AP staining)<br><b>IP:</b> yes<br><b>ICC:</b> not recommended<br><b>IHC:</b> not recommended<br><b>IHC-P/FFPE:</b> not tested yet<br><b>ELISA:</b> yes           |
| Clone                      | 30A4  |
| Subtype                    | IgG1 (κ light chain)  |
| Immunogen                  | Synthetic peptide corresponding to AA 519 to 556 from mouse Sra1 (UniProt Id: Q7TMB8)   |
| Epitop                     | Epitop: AA 519 to 556 from mouse Sra1 (UniProt Id: Q7TMB8)  |
| Reactivity                 | Reacts with: human (Q7L576), rat, mouse (Q7TMB8).<br>Other species not tested yet.  |
| Specificity                | Specific for Sra 1 but may cross-react with CYFIP 2/PIR 121 due to high sequence homology.  |

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

The formation of cellular projections like lamellipodia and ruffles is accompanied by de novo actin nucleation and polymerization of actin filaments. Several protein factors like the Arp 2/3 complex, WASP/Scar and small GTPases of the Rho family have been shown to participate in this process. The Arp 2/3 complex is activated by GTP-loaded Rac 1 via WAVE proteins. The **Specifically Rac-associated protein** or **Sra 1**, also referred to as cytoplasmic FMR 1 interacting protein 1, has been shown to interact with WAVE 2 and other proteins like Abi 1 at the tips of membrane protrusions.

### Selected References SYSY Antibodies

Haploinsufficiency of Cyfip1 produces fragile X-like phenotypes in mice.  
Bozdagi O, Sakurai T, Dorr N, Pilorge M, Takahashi N, Buxbaum JD  
PloS one (2012) 7(8): e42422. **WB; tested species: mouse**

WAVE2-Abi2 complex controls growth cone activity and regulates the multipolar-bipolar transition as well as the initiation of glia-guided migration.  
Xie MJ, Yagi H, Kuroda K, Wang CC, Komada M, Zhao H, Sakakibara A, Miyata T, Nagata K, Oka Y, Iguchi T, et al.  
Cerebral cortex (New York, N.Y. : 1991) (2013) 23(6): 1410-23. **WB; tested species: mouse**

Filopodia formation in the absence of functional WAVE- and Arp2/3-complexes.  
Steffen A, Faix J, Resch GP, Linkner J, Wehland J, Small JV, Rottner K, Stradal TE  
Molecular biology of the cell (2006) 17(6): 2581-91. **WB**

### Selected General References

Sra-1 interacts with Kette and Wasp and is required for neuronal and bristle development in Drosophila.  
Bogdan S, Grewe O, Strunk M, Mertens A, Klämbt C  
Development (Cambridge, England) (2004) 131(16): 3981-9.

Sra-1 and Nap1 link Rac to actin assembly driving lamellipodia formation.  
Steffen A, Rottner K, Ehinger J, Innocenti M, Scita G, Wehland J, Stradal TE  
The EMBO journal (2004) 23(4): 749-59.

p140Sra-1 (specifically Rac1-associated protein) is a novel specific target for Rac1 small GTPase.  
Kobayashi K, Kuroda S, Fukata M, Nakamura T, Nagase T, Nomura N, Matsuura Y, Yoshida-Kubomura N, Iwamatsu A, Kaibuchi K  
The Journal of biological chemistry (1998) 273(1): 291-5.