bs-12524R **[Primary Antibody]**

ARP2 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 10097 **SWISS:** P61160

Target: ARP2

Immunogen: KLH conjugated synthetic peptide derived from human ARP2/ARP3: 301-394/394.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Actin polymerization is required for a variety of cell functions, including chemotaxis, cell migration, cell adhesion, and platelet activation. Cells trigger actin polymerization through either the de novo nucleation of filaments from monomeric actin, the severing of existing filaments to create uncapped barbed ends, or the uncapping of existing barbed ends. The nucleation of actin is a rate-limiting and unfavorable reaction in actin polymerization and therefore requires the involvement of the Arp2/3 complex, which helps create new filaments and promotes the end-to-side cross-linking of actin filaments into the branching meshwork. The Arp2/3 complex consists of the actin-related proteins Arp2 and Arp3, and various other accessory proteins. The Arp2/3 complex promotes actin nucleation by binding the pointed end of actin filaments, or by associating with the side of an existing filament, and nucleates growth in the barbed direction. In addition, the Arp2/3 complex also mediates actin cytoskeletal outgrowths that are regulated by the Rho family of small GTPases. In response to GTP-binding Cdc42, the Arp2/3 complex binds the Cdc42 substrates, namely the WASP proteins, and initiates the formation of lamellipodia and filopodia.

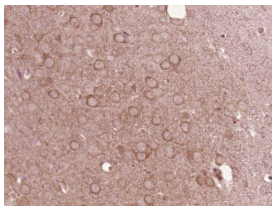
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Mouse (predicted: Human, Rat, Pig, Cow, Chicken, Orangutan)

Predicted MW.: 45 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ARP2) Polyclonal Antibody, Unconjugated (bs-12524R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=6.639]** Miran Rada. et al. Cancer Cells Promote Phenotypic Alterations in Hepatocytes at the Edge of Cancer Cell Nests to Facilitate Vessel Co-Option Establishment in Colorectal Cancer Liver Metastases. Cancers. 2022 Jan;14(5):1318 IHC ;Human. 35267627
- **[IF=6.639]** Miran Rada. et al. Angiopoietin-1 Upregulates Cancer Cell Motility in Colorectal Cancer Liver Metastases through Actin-Related Protein 2/3. CANCERS. 2022 Jan;14(10):2540 IHC,IF ;Human,Mouse. 35626145
- **[IF=6.268]** Rada, Miran. et al. Runt related transcription factor-1 plays a central role in vessel co-option of colorectal cancer liver metastases. Commun Biol. 2021 Aug;4(1):1-15 IHC ;Human. 34376784
- **[IF=4.014]** Nuo Heng. et al. RhoA improves cryopreservation of rooster sperm through the Rho/RhoA-associated Kinase/cofilin pathway. POULTRY SCIENCE. 2022 Jul;:102051 WB ;Chicken. 35961254
- **[IF=3.231]** Meng-Hao Pan. et al. The Impact of Arp2/3 Complex Inhibition on Cytoskeleton Dynamics and Mitochondrial Function during Goat Oocyte Meiosis. ANIMALS. 2023 Jan;13(2):263 IF ;Goat. 36670803