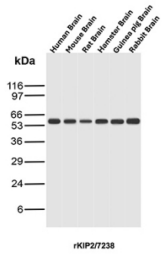
p57Kip2 Antibody / Cross-Species Brain Reactivity Antibody [clone rKIP2/7238] (V4155)

Catalog No.	Formulation	Size
V4155-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4155-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4155SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

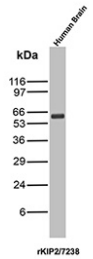
Recombinant | MOUSE MONOCLONAL

Bulk quote request

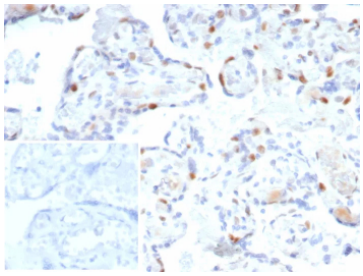
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Hamster, Rabbit, Guinea pig
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG, kappa
Clone Name	rKIP2/7238
Purity	Protein A/G affinity
UniProt	P49918
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml (Human) Western Blot : 2-4ug/ml (Human/Mouse/Rat/Hamster/Rabbit/Guinea pig)
Limitations	This p57Kip2 antibody is available for research use only.



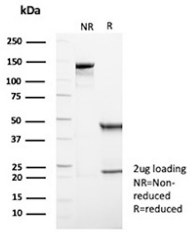
p57Kip2 Antibody Multi-Species Brain WB. Western blot analysis of p57Kip2 / CDKN1C expression across brain lysates from multiple species using p57Kip2 antibody clone rKIP2/7238. Lane 1: human brain lysate, Lane 2: mouse brain lysate, Lane 3: rat brain lysate, Lane 4: hamster brain lysate, Lane 5: guinea pig brain lysate, Lane 6: rabbit brain lysate. A band is detected at approximately 55-60 kDa, consistent with the predicted molecular weight of p57Kip2 (CDKN1C), a cyclin-dependent kinase inhibitor involved in growth control and differentiation. The consistent signal across species supports the use of this clone for cross-species brain reactivity studies.



p57Kip2 Antibody Human Brain WB. Western blot analysis of p57Kip2 / CDKN1C expression in human brain tissue lysate using p57Kip2 antibody clone rKIP2/7238. Lane 1: human brain lysate. A band is detected at approximately 55-60 kDa, consistent with the predicted molecular weight of p57Kip2 (CDKN1C), a cyclin-dependent kinase inhibitor that regulates cell cycle progression and differentiation. The clear detection in brain tissue supports the use of this clone for western blot analysis of neural samples.



p57Kip2 Antibody Bladder IHC. Immunohistochemical analysis of Cyclin-dependent kinase inhibitor 1C (p57Kip2, CDKN1C) in formalin-fixed, paraffin-embedded human bladder tissue using p57Kip2 antibody clone rKIP2/7238. Distinct nuclear staining is observed in epithelial cells, consistent with the role of p57Kip2 as a cell cycle regulator localized to the nucleus. The staining pattern highlights epithelial cell populations and supports its involvement in growth control and differentiation. The antibody was applied at 2 ug/ml. Inset: PBS used in place of primary antibody serves as a negative control for secondary antibody binding. Required HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free p57Kip2 antibody (rKIP2/7238) as confirmation of integrity and purity.

Description

Cyclin-dependent kinase inhibitor 1C (CDKN1C), commonly known as p57Kip2 or p57, is a member of the CIP/KIP family of cyclin-dependent kinase inhibitors that plays a critical role in regulating cell cycle progression, cellular differentiation, and developmental growth control. p57Kip2 functions by binding to and inhibiting cyclin-CDK complexes, including cyclin E-CDK2 and cyclin D-CDK4/6, thereby enforcing cell cycle arrest and promoting exit from the cell cycle during differentiation. The protein is predominantly localized in the nucleus, where it exerts its inhibitory effects, although cytoplasmic localization may occur depending on cellular context and regulatory signaling. The p57Kip2 Antibody / Cross-Species Brain Reactivity Antibody is designed to detect this key regulatory protein with strong and consistent performance in brain tissue across multiple species, supporting comparative western blot analysis in neural systems.

p57Kip2 antibody, also referred to as CDKN1C antibody and Kip2 antibody in the literature, recognizes a tightly regulated protein with distinct developmental and tissue-specific expression patterns. Western blot analysis demonstrates a clear and reproducible band at approximately 55Ã¢Â€Â“60 kDa across brain lysates from human, mouse, rat, hamster, guinea pig, and rabbit, consistent with the predicted molecular weight of p57Kip2. This consistent detection across species highlights the conserved structure and function of CDKN1C and supports the use of this antibody for cross-species studies, particularly in neural tissues where p57Kip2 contributes to lineage specification and differentiation.

Structurally, p57Kip2 contains an N-terminal domain responsible for binding and inhibiting cyclin-CDK complexes, as well as a C-terminal region involved in protein stability, subcellular localization, and interaction with regulatory partners. CDKN1C is an imprinted gene expressed primarily from the maternal allele, adding an additional layer of regulation that is critical for normal development. The protein is further regulated through phosphorylation and ubiquitin-mediated degradation, allowing dynamic control of its levels in response to developmental cues and cellular signaling pathways.

Functionally, p57Kip2 is essential for embryonic development and plays a key role in controlling tissue growth,

organogenesis, and terminal differentiation. In the nervous system, p57Kip2 contributes to the regulation of neural progenitor cell proliferation and differentiation, helping to establish proper tissue architecture. Its activity ensures that cells exit the cell cycle at the appropriate time to undergo differentiation, a process that is particularly important in developing and mature brain tissue.

p57Kip2 is also recognized as a tumor suppressor, with altered expression or loss of function linked to developmental disorders and malignancies. Dysregulation of CDKN1C has been associated with abnormal growth control and tumorigenesis, underscoring its importance in maintaining cellular homeostasis. The ability to detect p57Kip2 consistently at the expected molecular weight across multiple species supports the reliability of this antibody for western blot applications and comparative studies in both normal and disease contexts.

Immunohistochemical analysis further complements these findings, with staining observed in human tissues consistent with cell populations expressing p57Kip2, including epithelial and glandular structures. This tissue-level validation reinforces the utility of this antibody in both biochemical and histological applications. Clone rKIP2/7238 is a recombinant mouse monoclonal antibody designed to detect p57Kip2 with high specificity, providing a robust and versatile tool for investigating cell cycle regulation, developmental biology, and neural tissue expression across species.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the p57Kip2 Antibody / Cross-Species Brain Reactivity Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human p57Kip2 protein was used as the immunogen for the p57Kip2 antibody.

Storage

Aliquot the p57Kip2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

p57Kip2 antibody, CDKN1C antibody, p57 antibody, Kip2 antibody, p57Kip2 WB antibody