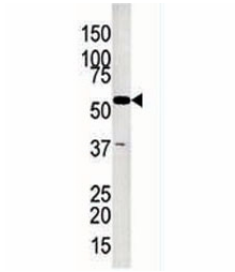
Glycerol Kinase 2 Antibody / GK2 Antibody (F40081)

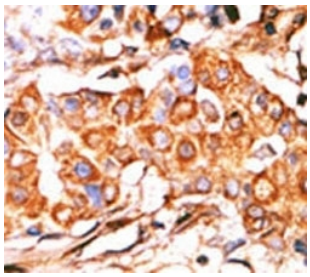
Catalog No.	Formulation	Size
F40081-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40081-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Bovine, Primate
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q14410
Applications	Western blot: 1:1000 IHC (Paraffin): 1:50-1:100
Limitations	This Glycerol Kinase 2 Antibody / GK2 Antibody is available for research use only.



Glycerol Kinase 2 Antibody Human Jurkat WB. Western blot analysis of human Jurkat cell lysate using Glycerol Kinase 2 Antibody. A distinct band is detected at approximately 54 kDa, consistent with the expected molecular weight of endogenous GK2. These results demonstrate specific detection of Glycerol Kinase 2 Antibody and support its use for investigating GK2 expression, spermatogenesis, sperm mitochondrial metabolism and male reproductive biology.



Glycerol Kinase 2 Antibody Human Breast Carcinoma IHC. Immunohistochemical staining of FFPE human breast carcinoma tissue using Glycerol Kinase 2 Antibody with HRP/DAB detection. Moderate cytoplasmic staining is observed in the tumor cells, consistent with the expected intracellular localization of GK2. This staining demonstrates the utility of Glycerol Kinase 2 Antibody for investigating GK2 expression and the distribution of this testis-enriched glycerol kinase family member in normal and neoplastic tissues.

Description

Glycerol Kinase 2 Antibody / GK2 Antibody recognizes glycerol kinase 2 (GK2), a testis-enriched member of the glycerol kinase family that is predominantly expressed in developing germ cells and mature spermatozoa. Although homologous to the ubiquitously expressed glycerol kinase enzyme, GK2 has evolved specialized functions associated with male reproduction rather than systemic glycerol metabolism. Localization of GK2 within the mitochondrial sheath of sperm suggests an important role in maintaining mitochondrial organization and supporting the energetic demands required for normal sperm function. NSJ Bioreagents offers Glycerol Kinase 2 Antibody reagents for investigating reproductive biology and germ cell differentiation.

GK2 expression is highly restricted compared with other glycerol kinase family members, making it a valuable marker for studies of spermatogenesis and sperm maturation. During sperm development, mitochondria become tightly organized within the flagellar midpiece to generate the ATP required for progressive motility. Current evidence indicates that GK2 contributes to maintaining this specialized mitochondrial architecture and may participate in metabolic pathways supporting sperm viability and fertilization. Consequently, Glycerol Kinase 2 Antibody is widely used to investigate testicular development, sperm physiology and reproductive function.

Defects affecting sperm mitochondrial structure or bioenergetics are recognized causes of reduced sperm motility and male infertility. Because GK2 expression is largely confined to the testis, it has become an important target for studies of reproductive disorders and germ cell biology. Ongoing investigations continue to clarify how GK2 regulates sperm differentiation, mitochondrial integrity and fertilization capacity while distinguishing its biological functions from those of the canonical glycerol kinase enzyme expressed throughout the body. Researchers frequently employ Glycerol Kinase 2 Antibody to examine these specialized reproductive processes.

A Glycerol Kinase 2 Antibody is a valuable reagent for investigating spermatogenesis, sperm maturation and mitochondrial organization within male germ cells. A GK2 Antibody supports research involving male fertility, reproductive physiology, sperm bioenergetics and testicular development.

For an overview of GK2 biology and its specialized role in sperm mitochondrial metabolism, spermatogenesis and male fertility, visit our GK2 Antibody / Sperm Mitochondrial Metabolism Antibody page.

Application Notes

Titration of the Glycerol Kinase 2 Antibody / GK2 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 487-515 from the human protein was used as the immunogen for this Glycerol kinase 2 antibody.

Storage

Aliquot the Glycerol kinase 2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Glycerol Kinase 2 antibody, GK2 antibody, Glycerol Kinase 2-Like antibody, Testis Glycerol Kinase antibody

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