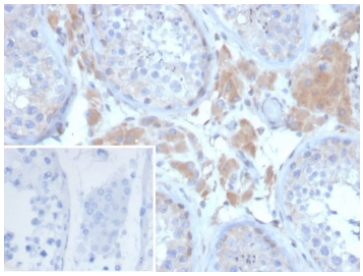
GDF9 Antibody / Ovarian Follicle Development Marker [clone GDF9/6458] (V5383)

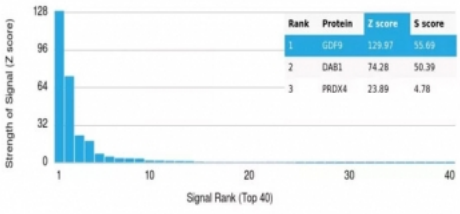
Catalog No.	Formulation	Size
V5383-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5383-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5383SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

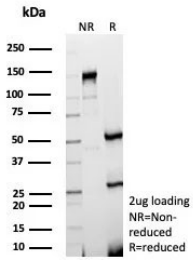
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	GDF9/6458
Purity	Protein A/G affinity
UniProt	O60383
Localization	Cytoplasm, Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This GDF9 Antibody / Ovarian Follicle Development Marker is available for research use only.



GDF9 Antibody Ovary IHC. Immunohistochemistry analysis of FFPE human ovary tissue stained with GDF9 Antibody clone GDF9/6458 demonstrates cytoplasmic HRP-DAB brown staining within ovarian follicle-associated cellular populations, consistent with expression of Growth differentiation factor 9 / GDF9 in oocyte-derived signaling and folliculogenesis-associated regulatory pathways. The observed staining profile aligns with the established role of GDF9 in ovarian follicle maturation, granulosa cell communication, and female reproductive endocrine signaling. The negative control inset using PBS in place of primary antibody demonstrates minimal background secondary antibody binding.



GDF9 Antibody Microarray Specificity Validation. Analysis of a HuProt(TM) human protein microarray containing more than 19,000 full-length human proteins using clone GDF9/6458 demonstrates highly preferential binding to Growth differentiation factor 9 / GDF9 relative to lower-ranking proteins represented on the array. The strong enrichment of GDF9 signal supports the specificity of this monoclonal antibody for studies involving ovarian follicle development, oocyte-associated signaling pathways, and reproductive endocrine biology.



SDS-PAGE analysis of purified, BSA-free Growth Differentiation Factor 9 / GDF9 antibody (clone GDF9/6458) as confirmation of integrity and purity.

Description

Growth differentiation factor 9 (GDF9) is an oocyte-derived signaling protein involved in ovarian follicle development, granulosa cell regulation, and female reproductive physiology. The GDF9 Antibody / Ovarian Follicle Development Marker is designed for detection of GDF9 expression in studies involving oocyte maturation, folliculogenesis, reproductive endocrinology, and transforming growth factor beta-associated signaling pathways.

GDF9 is encoded by the GDF9 gene on chromosome 5q31 and belongs to the transforming growth factor beta (TGF-beta) superfamily of secreted growth factors. The protein is synthesized primarily by oocytes and functions through paracrine signaling mechanisms that regulate granulosa cell proliferation, follicular differentiation, and coordinated ovarian follicle maturation. GDF9 expression is essential for normal ovarian development and female fertility-associated signaling pathways.

GDF9 signaling plays a central role in communication between developing oocytes and surrounding granulosa cell populations within ovarian follicles. Through interactions with TGF-beta-associated receptor pathways and downstream SMAD signaling mechanisms, GDF9 contributes to follicular growth, ovulation-associated maturation, and regulation of reproductive endocrine physiology. Altered GDF9 expression or signaling activity has been associated with infertility, abnormal folliculogenesis, ovarian dysfunction, and reproductive developmental abnormalities.

In addition to ovarian follicle biology, GDF9-associated signaling has attracted broader interest in reproductive medicine, developmental biology, and endocrine regulation research. The protein is frequently studied together with BMP15 and additional oocyte-associated growth factors involved in follicular microenvironment regulation and female germ cell-associated signaling pathways. Because GDF9 functions within tightly coordinated reproductive signaling networks, the protein remains an important target in studies involving fertility regulation and ovarian developmental biology.

The GDF9 monoclonal antibody is further differentiated by protein microarray specificity validation performed against a HuProt(TM) array containing more than 19,000 full-length human proteins. This large-scale specificity screening approach helps evaluate antibody selectivity across the human proteome and supports confident detection of GDF9 in studies where reduced off-target recognition is an important experimental consideration. The resulting specificity profile demonstrates strong preferential recognition of GDF9 relative to lower-ranking proteins represented on the array.

Immunohistochemical analysis using GDF9 antibodies commonly demonstrates cytoplasmic staining patterns within oocyte-associated and ovarian follicular cellular compartments consistent with the secreted signaling biology of this reproductive growth factor. GDF9 continues to serve as an important target in studies involving ovarian follicle development, reproductive endocrinology, female fertility, and oocyte-associated signaling pathways.

Additional antibodies involved in reproductive endocrinology, ovarian signaling, folliculogenesis, and transforming growth factor beta-associated developmental pathways can be explored within our Developmental Biology Antibodies collection.

Application Notes

Optimal dilution of the GDF9 Antibody / Ovarian Follicle Development Marker should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 250-450) of human Growth Differentiation Factor 9 protein was used as the immunogen for the Growth Differentiation Factor 9 / GDF9 antibody.

Storage

Aliquot the Growth Differentiation Factor 9 / GDF9 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

GDF9 antibody, Growth differentiation factor 9 antibody, Oocyte development factor antibody, Ovarian follicle development marker antibody, TGF-beta family growth factor antibody

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