

Discovered on GIST 1(DOG1) Immunohistochemistry

Test Description

DOG1 (discovered on GIST 1), known also as TMEM16A and ANO1, has emerged in recent years as a promising biomarker for gastrointestinal stromal tumors (GIST). It was originally discovered through microarray expression profiling analysis as gene that is highly expressed in GIST, and subsequent immunohistochemical studies have shown its use in its diagnosis. The results from several series have shown a high overall sensitivity and specificity for DOG1 in the detection of GISTs and about 6% of GISTs overall exhibiting a DOG1+/KIT-immunoprofile.

DOG1: Negative

Specimen

Sample Type: FFPE block MOLQ B-2102/22
Site: Intra-abdominal Mass
Pathology ID: MOLQ/B- 2389/22
Disease: Benign Spindle cell Neoplasm

Interpretation

Positive: Strong, brown, membranous and cytoplasmic staining.

Negative: Absence of strong membranous and cytoplasmic staining.

Methodology

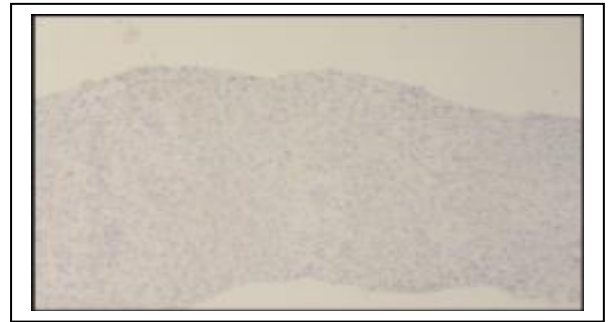
Immunostaining for DOG1 stain.

Note

DOG1 antibodies are more sensitive than KIT antibodies in detecting tumors of gastric origin, tumors with epithelioid morphology, and tumors harboring PDGFRA mutation. Furthermore, DOG1 immunoreactivity is rarely observed in other mesenchymal and non mesenchymal tumor types. These results support the use of DOG1 as a diagnostic biomarker for GIST. When used in combination with KIT, this panel of diagnostic biomarkers can help pathologists and clinicians to identify more patients who may benefit from targeted therapies.

References

1. Rosai and Ackerman's Surgical Pathology.
2. Immunohistochemistry for predictive biomarkers in non-small cell lung cancer Mari Mino-Kenudson Transl Lung Cancer Res. 2017 Oct; 6(5).
3. The utility of discovered on gastrointestinal stromal tumor 1 (DOG1) antibody in surgical pathology-the GIST of it

DOG1 IHC

Microscopy Evaluation

DOG1 staining for tumor cells: NEGATIVE

Reviewed By



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DOG1 IHC

PATIENT	REPORT DATE	BOOKING ID
SONU 33/F	01/06/2022	012205190241