

TROP-2 Immunohistochemistry

Test Description

This test is useful for identification of neoplasms expressing Tumor-associated calcium signal transducer 2.

Trop-2 or Tumor-associated calcium signal transducer 2, also known as epithelial glycoprotein-1 antigen (EGP-1), is a protein that in humans is encoded by the TACSTD2 gene. This transmembrane glycoprotein functions in a variety of cell signaling pathways and was first elucidated as a transducer of an intracellular calcium signal. Trop-2 expression has been demonstrated to depend on a large variety of transcription factors. Trop-2 is involved in several cell signaling pathways, of which many are associated with tumorigenesis.

Specimen

Sample Type: FFPE cell block H-9160/22 A

Site: Urinary Bladder.

Pathology ID: MOLQ IHC-008/23

Disease: Urothelial carcinoma

Interpretation

The scoring system is based on type and origin of tumor. If additional interpretation or analysis is needed, send request for Pathology Consultation.

Methodology

Immunostaining for TROP-2 protein was done using Mouse Anti-Human Monoclonal Antibody (Clone BSB-148).

Positive TROP-2 staining/expression is defined as complete and circumferential or linear plasma membrane staining at any intensity that can be differentiated from background.

Note

Preclinical studies suggest that Trop-2 may play a role in tumor progression given the involvement in several molecular pathways traditionally associated with cancer development. High Trop-2 antibody expression correlates with poor prognosis in Pancreatic Carcinoma, Hilar Cholangiocarcinoma, Cervical Cancer, Gastric Cancer, and others. Increased Trop-2 antibody expression has been associated with poor overall and disease-free survival outcomes across several solid tumors. Given Trop-2's expression pattern and associated poor prognostic outcomes, Trop-2 is a rational prognostic marker and a possible therapeutic target.

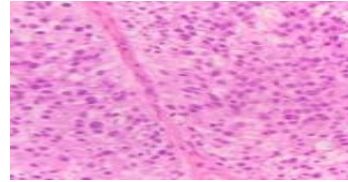
Microscopy Evaluation

Tumor cell staining for TROP-2- Positive (3+).

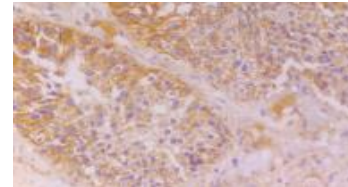
% of tumor cells positive- 58%

M score = 219.1

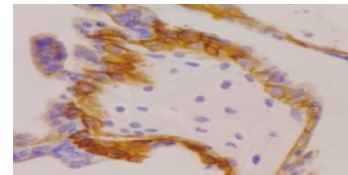
HE Stained Section



TROP-2 IHC- Tumor Cells



TROP-2 IHC Control tissue



TROP-2 Immunostaining- POSITIVE

Reviewed By



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Pathology