**BACKGROUND**

Trophinin, also known as TRO or MAGED3, is an apical cell adhesion molecule that interacts with and forms a complex with Bystin and Tastin, facilitating cell adhesion and embryo implantation. Trophinin is a membrane protein expressed in chorionic villi trophoblasts and in maternal endometrial epithelial cells in an implantation-dependent manner. It functions by mediating cell adhesion between trophoblastic and endometrial epithelial cells. The adhesion is achieved via homophilic Trophinin-Trophinin binding. Trophinin expression is induced by Choriongonadotropin β as well as IL-1β, and higher expression levels of Trophinin promote cell adhesion. Since increased expression leads to greater rates of cell adhesion, induction of Trophinin expression may be a useful method for improving implantation rates. Trophinin is also found in macrophages and contains one MAGE (melanoma-associated antigen) domain.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TRO (human) mapping to Xp11.21; Tro (mouse) mapping to X F3.

**SOURCE**

Trophinin (clone 3-11) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 681-689 of Trophinin of human origin.

**PRODUCT**

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Trophinin (clone 3-11) is recommended for detection of Trophinin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (10-2 µg per 100-500 µg of total protein [1 ml of cell lysate]), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of human Trophinin: 69 kDa.
Molecular Weight of mouse Trophinin: 110 kDa.
Positive Controls: human trophoblastic embryonal carcinoma cell lysate.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

Trophinin (clone 3-11) sc-80002. Western blot analysis of Trophinin expression in human trophoblastic embryonal carcinoma cell lysate. Kindly provided by Dr. Michiko Fukuda, Burnham Institute for Medical Research.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.