

# Mitotic Cells (2Q2271): sc-71591

## BACKGROUND

The life cycle of a eukaryotic cell consists of various phases including mitosis (M phase) and synthesis (S phase). Mitosis is defined as the process by which a cell separates its duplicated genome into two identical daughter cells. During M phase, chromosome condensation and spindle formation are microscopically visible. Usually, this is followed immediately by cytokinesis, the process of cytoplasm and cell membrane division. In the S phase, the DNA of the cell is replicated, which can be detected using biochemical techniques. The G<sub>1</sub> phase of the cell cycle refers to the gap between mitosis and the start of DNA replication, and the G<sub>2</sub> phase refers to the gap between completion of DNA replication and the onset of mitosis. Regulation of the cell cycle predominantly occurs at three major control points, which govern the transition from G<sub>0</sub> to G<sub>1</sub>, from G<sub>1</sub> to S and from G<sub>2</sub> to M phase. M phase itself is highly regulated, and is divided into five stages: prophase, prometaphase, metaphase, telophase and anaphase.

## REFERENCES

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## SOURCE

Mitotic Cells (2Q2271) is a mouse monoclonal antibody raised against total lysate of the human bladder carcinoma cell line T24.

## 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.

## APPLICATIONS

Mitotic Cells (2Q2271) is recommended for detection of mitotic cells of human and zebrafish origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.