# Thiazole Orange, 10 mM in DMSO

Thiazole orange (TO) is commonly used in reticulocyte analysis to stain residual RNA of blood cells, to stain DNA in agarose gels and capillary electrophoresis. Thiazole Orange stains the yeast nucleus, and is also able to stain bacteria and mammalian cells.



### Product attributes

| | |
|---|---|
| **Probe cellular localization** | Nucleus & cytoplasm |
| **For live or fixed cells** | For live/intact cells |
| **Assay type/options** | No-wash staining |
| **Cell permeability** | Membrane permeant |
| **Colors** | Red |
| **Excitation/Emission** | 512/533 nm (with DNA) |

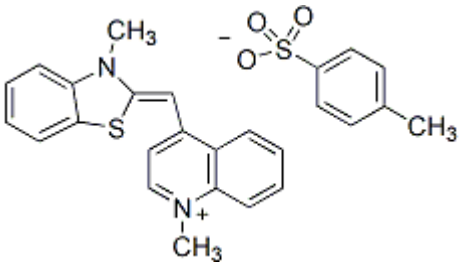
## Product Description

Thiazole orange (TO) is commonly used in reticulocyte analysis to stain residual RNA of blood cells[1], to stain DNA in agarose gels[2] and capillary electrophoresis[3].

In live yeast, TO shows both nuclear concentration and cytoplasmic signal; after fixation the staining becomes completely cytoplasmic. In live mammalian cells, thiazole orange initially stains mitochondria and then redistributes to the nucleus and cytoplasm. Thiazole orange can also stain live bacteria (gram-positive and gram-negative). See our Cellular Stains Table for more information on how our dyes stain various organisms.

**Product Features:**

- $\lambda_{Ex}/\lambda_{Em}$ (with DNA) = 512/533 nm
- Supplied at 10 mM in DMSO
- Store at 4 °C and protect from light



## References

1. Cytometry 7, 508-517 (1986).
2. Nucleic Acids Res. 19, 327-333 (1990).
3. Chem. 66, 1941-1948 (1994).