# Trypan UltraBlue™, Trypan Purple™, and Trypan Red Plus™

## Biological Properties

Trypan UltraBlue™, Trypan Purple™, and Trypan Red Plus™ are similar to Trypan Blue in cell permeability. It is not permeable to live cells. Compared to Trypan Blue, these new trypan compounds are less toxic to cells. In particular, they have minimal effect on cell surface receptors such as G-protein coupled receptors (GPCRs). Another advantage is that the cells can be clearly observed under microscope when Trypan Red Plus™ is used while Trypan Blue makes it quite difficult to see cells under microscope.

Our Trypan UltraBlue™, Trypan Purple™, Trypan Red Plus™ and Trypan UltraRed™ can also be used to prevent florescent dyes (such as FDA, rhodamine 123, JC-1, TMRA, TMRM, Indo-1 AM, Fura-2 AM, calcein AM, Fluo-3 AM, Fluo-4 AM and Fluo-8 AM) from leaking out of cells. They might inhibit the activities of drug-efflux pumps since they contain a probenecid-like moiety as shown below. Compared to probenecid, they are neutral, highly soluble in water, and convenient to use. Their cellular mechanisms are still under investigation.

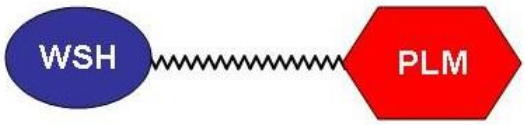


**Figure 1**. The structure of Trypan Red Plus™
(WSH = water-soluble head; PLM = probenecid-like moiety)

Our Trypan Purple™, and Trypan Red Plus™ are highly purified, and can be used up to 1 mM with minimal cell cytotoxicity. A certain volume of our concentrated Trypan UltraBlue™, Trypan Purple™, and Trypan Red Plus™ solutions can be added into the assay system to have the final concentrations of Trypan UltraBlue™, Trypan Purple™, and Trypan Red Plus™ ranging from 0.1 to 1.0 mM depending on the cell lines used. The recommended concentrations are from 0.25 to 0.75 mM.

## Ordering Information

| Cat. # | Product Name | Unit Size |
|---|---|---|
| **2450** | Trypan Blue, sodium salt *Cell culture tested* | 100 g |
| **2452** | Trypan Blue, sodium salt *UltraPure grade* *Purified to eliminate fluorescent impurities* | 10 g |
| **2455** | Trypan UltraBlue™, sodium salt *0.1 M aqueous solution* | 1 mL |
| **2456** | Trypan Red Plus™ *0.1 M aqueous solution* | 10 mL |
| **2457** | Trypan Red Plus™ *0.1 M aqueous solution* | 100 mL |
| **2465** | Trypan Purple™ *0.1 M aqueous solution* | 10 mL |
| **2466** | Trypan Purple™ *0.1 M aqueous solution* | 100 mL |

## Storage Conditions

Store at room temperature. Expiration date is 6 months from the date of receipt.

## References


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