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Di-8-ANEPPS

ANEPPS dyes are fast responding membrane potential dyes. Compared to Di-4-ANEPPS, Di-8-ANEPPS is better retained in the outer leaflet of cell plasma membranes and thus more suitable for long-term membrane potential studies. Di-8-ANEPPS is also more photostable and less phototoxic than Di-4-ANEPPS

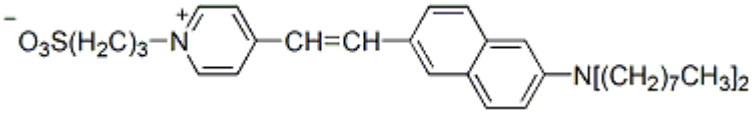
Product attributes

CAS number	157134-53-7
For live or fixed cells	For live/intact cells
Potential dependence	Fast-response membrane potential dye
Colors	Far-red
Excitation/Emission	498/713 (see product description)

Product Description

ANEPPS dyes are fast responding membrane potential dyes (1). Biotium offers both Di-4-ANEPPS and Di-8-ANEPPS. Di-4-ANEPPS has the problem of being rapidly internalized in cells, so it is mainly used for short-term experiments. However, because Di-8-ANEPPS is more lipophilic, the dye is better retained in the outer leaflet of cell plasma membranes and thus more suitable for long-term membrane potential studies. Di-8-ANEPPS is also more photostable and less phototoxic than Di-4-ANEPPS (2,3). In our tests, Di-8-ANEPPS also shows robust staining of liposomes, but poor staining of extracellular vesicles. Liposome staining with Di-8-ANEPPS is detectable in multiple channels using 488 nm excitation.

- λEx/λEm (MeOH) = 498/713 nm*
- Orange red solid soluble in DMF, ethanol or DMSO
- Store at 4 °C and Protect from light, especially when in solution
- $C_{36}H_{52}N_2O_3S$
- MW:593
- [157134-53-7]



* Note that the spectra of styryl dyes generally undergo a large blue shift in lipids compared to organic solvent. See the spectra for styryl dyes in liposomes under product images.

References

1. J Neurosci 15, 1392 (1995).

2. Neuron 13, 1187 (1994).

3. Neuron 9, 393 (1992).

4. International Society for Advancement of Cytometry (2015), doi: 10.1002/cyto.a.22787

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