

# OptiPrep™

Density gradient medium for the isolation of viruses, organelles, macromolecules, or cells

Catalog #07820

250 mL



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## Product Description

OptiPrep™ is a density gradient medium recommended for the isolation and purification of DNA or RNA viruses, organelles such as nuclei, mitochondria, endosomes or exosomes, macromolecules, as well as a wide range of cell types. OptiPrep™ is a non-ionic iodixanol-based medium with a density of  $1.320 \pm 0.001$  g/mL. It has been used clinically in X-ray contrast imaging and has been shown to have lower toxicity compared to ionic gradient compounds such as metrizamide. OptiPrep™ is a sterile, endotoxin-tested solution that is manufactured according to ISO 13485.

- Flexible: Use to form continuous or discontinuous gradients
- Versatile: Customize separation characteristics for isolation of viruses, organelles, macromolecules, or cells
- Gentle: Non-ionic, non-toxic to cells, isoosmotic, and metabolically inert

## Properties

Storage:	Store at 15 - 25°C. NOTE: Protect product from light. Prolonged exposure to direct sunlight leads to release of iodine from the iodixanol molecule. This effect is negligible when working with this solution on a daily basis.
Shelf Life:	Stable until expiry date on OptiPrep™ label.
Contains:	Iodixanol: 60% (w/v)
Sterility:	Autoclaved for 15 minutes at 121°C.
Density:	$1.320 \pm 0.001$ g/mL

## Handling / Directions for Use

Use this product as directed in the protocol of choice. Isolation protocols are available as follows:

- Viruses: [www.stemcell.com/optiprepvirusprotocols](http://www.stemcell.com/optiprepvirusprotocols)
- Organelles: [www.stemcell.com/optipreporganelleprotocols](http://www.stemcell.com/optipreporganelleprotocols)
- Macromolecules: [www.stemcell.com/optiprepmacromoleculeprotocols](http://www.stemcell.com/optiprepmacromoleculeprotocols)
- Cells of various types: [www.stemcell.com/optiprepcellprotocols](http://www.stemcell.com/optiprepcellprotocols)

## Related Products

For related products, including SepMate™ RUO (Catalog #86450/86415) or SepMate™ IVD\* (Catalog #85450/85415) tubes for facilitated cell isolation using density gradient centrifugation, cell isolation kits, antibodies, and other density gradient media, visit [www.cellseparation.com](http://www.cellseparation.com) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

\*SepMate™ IVD is only available in select regions where it is registered as an In Vitro Diagnostic (IVD) device for the isolation of mononuclear cells (MNCs) from whole blood or bone marrow by density gradient centrifugation. In all other regions SepMate™ is available for research use only (RUO).

## References

- Boyum A et al. (1991) Separation of leucocytes: Improved cell purity by fine adjustments of gradient medium density and osmolality. *Scand J Immunol* 34(6): 697–712.
- Hermens WT et al. (1999) Purification of recombinant adeno-associated virus by iodixanol gradient ultracentrifugation allows rapid and reproducible preparation of vector stocks for gene transfer in the nervous system. *Hum Gene Ther* 10(11): 1885–1991.
- Reed JC et al. (1993) Investigation of the subcellular distribution of the bcl-2 oncoprotein: Residence in the nuclear envelope, endoplasmic reticulum, and outer mitochondrial membranes. *Cancer Res* 53(19): 4701–14.

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