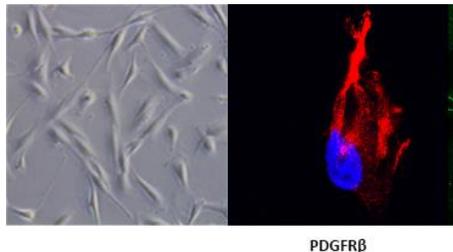


Human Kidney Mesangial Cells

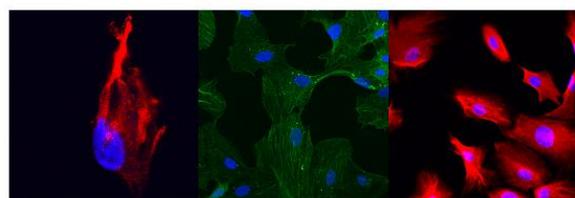


PDGFR β

Cryopreserved Human Kidney Mesangial Cells are isolated from the cortex of human kidneys that are deemed not suitable for transplantation and have received consent to be donated for research. After digestion of the cortex, a pure population of mesangial cells is isolated by magnetic positive selection for PDGFR β . These cells “fill the gap” between adjacent capillary loops surrounded by the glomerular basement membrane (GBM) and the podocytes. Mesangial cells remove trapped residues and aggregated protein from the basement membrane. In addition, they aid filtration by constituting part of the glomerular capillary tuft structure that filters fluids to produce urine.

QC Testing

Mesangial cells are characterized by yield, viability, and morphology. Purity is analyzed using immunofluorescence microscopy for PDGFR β , vimentin, and α smooth muscle actin. Each lot has a minimum of 500,000 cells per vial and a viability of $\geq 90\%$. Cells are terminally differentiated, and can be expanded for at least 15 population doublings. Mesangial cells have an intermediate phenotype, sharing features of fibroblasts and smooth muscle cells.



PDGFR β

α Smooth Muscle Actin

Vimentin

Advantages

- **Reproducibility:** same donor can be used for long-term testing
- **Convenience:** no waiting for fresh proximal tubule cells to become available and the cryopreserved vials are not time-sensitive
- **High post-thaw yield**
- **Characterization:** cells have been extensively characterized by morphology, viability, and surface/internal marker expression
- **More comprehensive donor information**

Applications

Novabiosis Mesangial cells are ideal in studies of:

- function and pathophysiology of the kidney
- toxicity
- drug transporter research
- tissue engineering
- single-cell analysis of individual donors
- capillary flow in the renal system
- urine regulation

Donor information including: cause of death, age, gender, race, BMI, diabetic status, smoking history, alcohol use, substance use, HLA typing, serology and culture results, and co-morbidities, if any, is also included on the CoA.

Serology results include (positive or negative):

CMV, EBV, Toxo, HBV, HCV, HIV-1, HIV-2. Additional serology results may be provided upon request.

Culture results include (positive or negative):

Gram +, Gram -, Mycoplasma, Fungi.



Catalog Information

Cryopreserved Human Kidney Mesangial Cells

- Cat. # 3031

Product Storage and Warranty

CULTURES HAVE A LIMITED LIFESPAN *IN VITRO*.

Upon receipt, immediately store cryovial(s) in vapor phase liquid nitrogen.

Cryopreserved human mesangial cells are viable for at least 2 years when stored under these conditions.

Novabiosis guarantees the performance of its cells only if following Novabiosis-specific instructions exclusively and the recommended products and protocols are used and followed.

The performance of the cells is not guaranteed if any modifications are made.

THESE PRODUCTS ARE FOR RESEARCH USE ONLY.