

## Invitro hUCBP™ human Umbilical Cord Blood Plasma

Invitrx human umbilical cord blood plasma (hUCBP) is a minimally manipulated product derived from the liquid phase of blood and is rich in various cytokines, growth factors, and immune modulatory factors. These messaging molecules are able to regulate immune and adult stem cells to promote homeostasis. In addition, these growth factors and cytokines contain plasticity promoting proteins that may have age managing effects.

One such age managing factor, enriched in hUCBP, is tissue inhibitor metalloproteinases 2 (TIMP-2), a factor that may increase synaptic plasticity and hippocampal function. In addition, hUCBP has been shown to activate quiescent neural stem cells in the subventricular zone and modulate how T cells produce, which may assist or be involved in brain injury recovery.

Invitrx hUCBP has been developed on over 15 years of research.

## Dedication to Excellence

Invitrx Therapeutics, headquartered in Orange County California is a global research-based biotechnology company with over 15 years of product development industry experience. Established in 2003, Invitrx Therapeutics has been a leading pioneer in Regenerative Stem Cell Therapies.

### PLASMA Concentration (pg/ml)

Anti-inflammatory		Wound Healing	
IL-1ra	198.2	VEGF	30
IL-10	1.9	TGFβ-1	4,998.30
HGF	183.8	IL-6	19.4
TNF RII	6,496.20	PDGF-BB	1,733.30
TGFβ-1	4,998.30	HGF	183.8
		bFGF	90.6
		ANG-1	6,649.70
		FGF-7	719
Homeostatic Cytokines		Growth Factors	
IL-2	48.5	ANG-1	6,649.70
IL-7	33	bFGF	90.6
IL-15	7.1	BMP-7	627.2
TIMP-2	7,308.50	TGFβ-1	4,998.30
Lipocalin-2	3,144.10	VEGF	30

## Quality Assurance

Invitro hUCBP™ is processed from donated umbilical cords from full term deliveries. All donors are Pre-screened and undergo comprehensive testing that includes:

- Behavioral risk assessment
- Physical assessment
- Donor medical history
- Communicable disease testing

Infectious disease testing is performed at a certified laboratory in accordance with the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and 42 CFR part 493.