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| ClearLine | Technical data sheet<br>Serum | Ref : 509498 |

# Charcoal stripped treatment on sera

For the end of the regular CAT n° serum
(minus last digit)
*E.g.: S0900 => S090F*

**Analyses:**
Tests and results are recorded on CoA.

**Treatments:**
Charcoal stripped serum is treated by filtering chilled serum through an activated carbon adsorbent filter to remove non-polar material. This treatment removes lipophilic material but has little effect on the concentration of salts dissolved in the serum.

BioWest offers Charcoal / Dextran stripped serum for researchers requiring low levels of various hormones. Charcoal / Dextran stripping reduces the concentration of steroid hormones in serum (e.g. oestradiol, progesterone, cortisol, testosterone, T3 and T4). It has been demonstrated and used in numerous studies both *in vivo* and *in vitro* (e.g., 1,2,3,4). So, this serum is useful for utilisation in receptor studies, oestrogen related investigations, or when endogenous steroid hormones may interfere with experimental work.
In addition, Charcoal / Dextran treatment has been demonstrated to improve immunoassay systems (5,6,7,8,9,10,11); Herbert, et al. (12) showed that the use of Charcoal / Dextran improved insulin assay methods.
Moreover, some studies indicate that Charcoal / Dextran treatments may be used to minimise lot to lot serum variability.

**Effects of the charcoal stripped treatment:**

- Serum may show some reduced growth promotion of cells requiring the presence of certain hormones and growth factors.
- Level of endotoxin is in general higher than non-treated serum because of the endotoxins in the charcoal and in the dextran.
- Molecules and ions concentration can be altered by this treatment. Non-treated sera values for : pH, osmolality and biochemistry parameters are not applicable for treated sera.

**Remarks:**
All other parameters than the ones mentioned above remain equal and can be find in each regular (non-treated) serum TDS.

DOMINIQUE DUTSCHER SAS