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Product Information

γ -Globulins from human blood

Product Number **G 4386**
Storage Temperature 2-8 °C

Product Description

λ_{max} : 280 nm
Extinction coefficient: $E^{1\%} = 13.8^1$
pI: 6.85, 6.95²

Immunoglobulin G has a molecular weight of approximately 155-160 kDa and is made up of two heavy chains, each of about 55-60 kDa and 2 light chains, each of about 25-28 kDa.³ On SDS-PAGE analysis, the product runs at approximately 180 kDa on a non-reducing gel, but in the presence of reducing agent, the disulfide bonds that connect the light and heavy chains are broken and the subunits are seen.¹ The raw material for this product is blood obtained from a blood bank.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Gamma globulin solubility is very pH-sensitive; it is not very soluble at the pI, but will be much more soluble at $\text{pH} = \text{pI} \pm 1$.² This product is also soluble in 0.9% sodium chloride at 50 mg/ml, yielding a slightly hazy solution. In addition, the product can be dissolved in HEPES buffer at pH 7.4-7.6.

Storage/Stability

This compound is very stable when stored frozen in aliquots at -20 °C.

References

1. Kilar, F., et al., Conformation of Human IgG Subclasses in Solution. Small-angle X-ray Scattering and Hydrodynamic Studies. Eur. J. Biochem., **147**, 17-25 (1985).
2. Righetti, P.G., et al., Effect of 2-mercaptoethanol on pH gradients in isoelectric focusing. J. Biochem. Biophys. Methods, **6**, 219-27 (1982).
3. J. Phys. Colloid Chem., **51**, 184-198 (1947).

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