



twb

White Biotechnology
center of excellence

ANALYTICAL

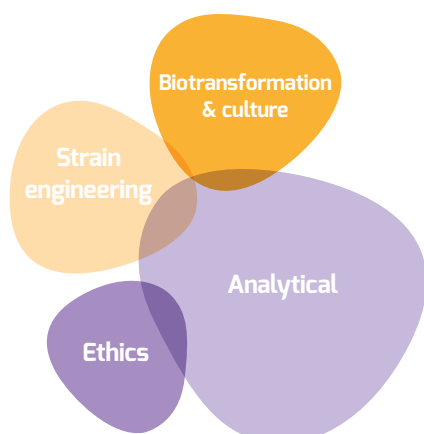
DETERMINATION OF THE AVERAGE MOLAR MASS OF POLYMERS IN SOLUTION

Our strengths

Diversity of analysed macromolecules

**Adaptation to polymer
solubility conditions**
(aqueous phase or organic solvent)

Wide range of molar mass
(10^3 to 10^9 g/mol) and size (10 to 500 nm)



An integrated solution tailored to the needs,
to accelerate the development of
industrial biotechnology

Our service

- ▶ Study of the polydispersity of a polymer
- ▶ Determination of the average molar mass of a polymer
- ▶ Determination of the dn/dc parameter

- Size-exclusion liquid chromatography analysis
- Detection by multi-angle light scattering (MALS) and refractive index detector (RI)

Deliverables

- ▶ Chromatographic profile of the polymer
- ▶ Main characteristics of the polymer (M_w , r_g , dn/dc , I_p ...), using standards or MALS data

Equipment

- ▶ **Isocratic HPLC system** (Shimadzu) compatible with organic or aqueous solvents
- ▶ **MALS detector** (Dawn Heleos II - Wyatt) with 18 angles
- ▶ **Refractometer** (Optilab T-rEX - Wyatt)



Some achievements

- ▶ **Study of macromolecules in solution** (proteins, natural and synthetic polymers)
- ▶ **Study of oligomerization** and aggregation of proteins
- ▶ **Monitoring of the synthesis and/or degradation** of polymers

Additional services

- ▶ Development of analytical methods by liquid or gas chromatography
- ▶ Custom assay of molecules
- ▶ Amino acid quantitative assay

Contact

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Customised estimate on request

