

```

SELECT ?protein ?uniprot_id ?taxon ?gene ?locus_name ?gene_label
      ?enzyme ?involved_activity ?enzyme_comment ?reaction ?reactant_glycan
      ?reactant_glycan_text ?product_glycan ?product_glycan_text
FROM <http://localhost:8890/mtb>
WHERE {
  #protein, taxon_id
  ?protein a up:Protein .
    OPTIONAL { ?protein owl:sameAs ?uniprot_id .
               ?protein glyrdf:is_from_source ?taxon. }
  ?protein up:encodedBy ?gene ;
    up:enzyme ?enzyme .

  #enzyme
  ?enzyme a up:Enzyme .
    OPTIONAL { ?enzyme obo:RO_0002331 ?involved_activity .
               ?enzyme ssci:SIO_001167 ?enzyme_comment .}

  #gene
  ?gene a up:Gene .
    OPTIONAL { ?gene up:locusName ?locus_name .
               ?gene skos:prefLabel ?gene_label . }

  #reaction
  ?reaction glyrdf:has_enzyme ?enzyme.
  ?reaction glyrdf:has_product ?product_glycan.
  ?product_glycan rdfs:label ?product_glycan_text.
    OPTIONAL { ?reaction glyrdf:has_substrate ?reactant_glycan.
               ?reactant_glycan rdfs:label ?reactant_glycan_text. }
}

```