

Supplemental Table S1

Differential diagnoses for patients with elevated basal serum tryptase levels

Diagnosis	Most likely cellular origin of tryptase
Hematologic	
Systemic mastocytosis	Clonal MC
Myelomastocytic leukemia	Myeloblasts, neoplastic MC
Ph+ chronic myeloid leukemia	Clonal (immature) basophils
Chronic basophilic leukemia	Clonal (immature) basophils
Acute basophilic leukemia	Clonal (immature) basophils
Acute myeloid leukemia	Myeloblasts
Myelodysplastic syndrome (MDS)	Myeloblasts, basophils, MC
Myeloproliferative neoplasm (MPN)	Myeloblasts, basophils, MC
MPN/MDS overlap neoplasm	Myeloblasts, basophils or MC
FIP1L1/PDGFR α + chronic eosinophilic leukemia (CEL)	Clonal MC
Reactive causes/conditions*	
Allergic diseases	MC
Chronic urticaria	MC
Chronic inflammatory diseases	MC
Chronic helminth infection	MC
Other Conditions	
Familial alpha-tryptasemia	MC, other cells?
Severe kidney disease (renal failure)	MC
Normal healthy individual**	MC
False-positive test result***	-

*Diseases within this category will often be accompanied by serum tryptase levels within the normal range. **Occasional normal healthy individuals may have an elevated basal serum tryptase in the absence of known causes of an elevated tryptase and where the basis for the elevation is yet to be determined. ***A false-positive test result has been regarded as related to the presence of heterophilic antibodies in previous times. The new version of the tryptase test is considered to avoid this analytical problem. False positive assays in urine for histamine and its metabolites can be the result of bacterial contamination or diet. MC, mast cells.