

Table S1 - Exclusion Rules. These rules are applied with the highest priority to filter out non-relevant phenotypes.

Rule ID	Category	Keywords / Logic (Complete)	Rationale & (Exemptions)
E1	Non-Lethal Modifiers	mild, incomplete, partial, delayed onset, -induced, drug-associated, exercise-induced, in situ, unilateral, equivocal	These terms explicitly indicate a deviation from the classic, most severe form of a disease. (Exemptions: 'mild' is ignored in the context of 'with mild'; 'atypical' is handled by Rule E2).
E2	Atypical Modifier	atypical	The term "atypical" usually implies a less severe or non-classic disease course. (Exemptions: Ignored for 'atypical teratoid rhabdoid tumor'. If conflicting with a Confirmed Lethal term, the phenotype is escalated to High Severity for manual review)
E3	Risk / Susceptibility Status	susceptibility to, predisposition, risk, family history of, finding	These terms describe a risk state rather than a diagnosed disease entity. (Exemption: If associated with high-risk malignancy keywords (H6), the phenotype is classified as High Severity).
E4	General Non-Lethal Conditions	achondroplasia, Rett syndrome, Angelman syndrome, Prader-Willi syndrome, Huntington disease, Alzheimer disease, Parkinson disease, benign familial, phenylketonuria, galactosemia, biotinidase deficiency, sweat chloride elevation, modifier of, resistance to, protection against, response to, polymorphism	A curated list of well-known non-lethal, primarily disabling, late-onset, or effectively treatable disorders and non-disease terms.