

Untitled study

Troponin I (ng/L) · Limit of detection ○ Descriptive results

Study date Not recorded

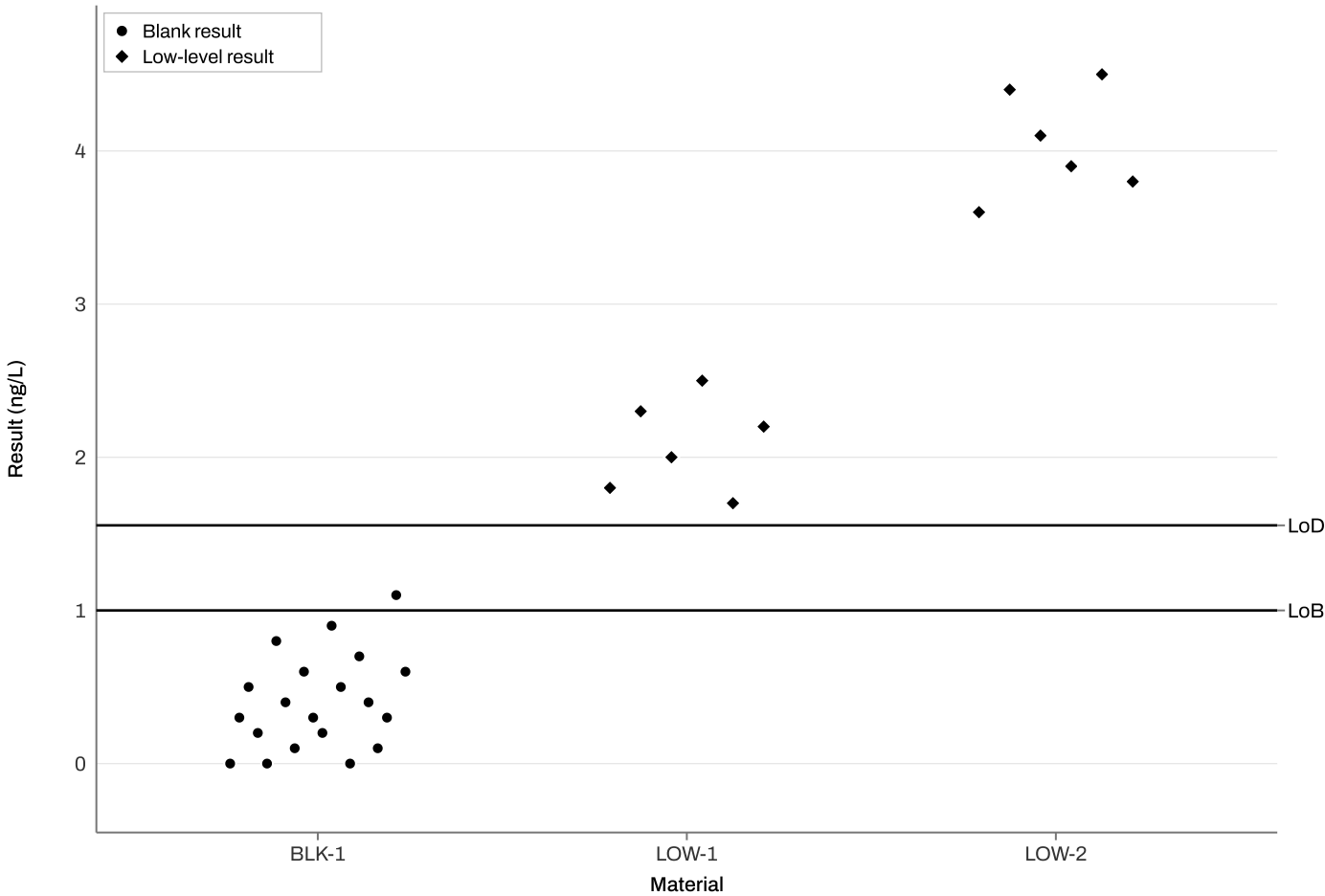


Figure 1. Results by material, with the LoB and LoD.

Table 1. Limit of detection

Estimate	Value (ng/L)	95% CI (ng/L)	Basis
LoD	1.56	—	LoB + 1.6870 × pooled SD
LoB	1.00	From 0.70 ^{*1}	Nonparametric, 20 blank results
Pooled low-level SD	0.329	0.23–0.58	2 materials, 10 degrees of freedom

Study details

Data 32 included

Materials 3

Signed off by

Date

A Data listing

Source: manual entry. 32 rows, all included.

Study row	Material	Role	Assigned (ng/L)	Result (ng/L)	Replicate
1	BLK-1	blank		0.0	1
2	BLK-1	blank		0.3	2
3	BLK-1	blank		0.5	3
4	BLK-1	blank		0.2	4
5	BLK-1	blank		0.0	5
6	BLK-1	blank		0.8	6
7	BLK-1	blank		0.4	7
8	BLK-1	blank		0.1	8
9	BLK-1	blank		0.6	9
10	BLK-1	blank		0.3	10
11	BLK-1	blank		0.2	11
12	BLK-1	blank		0.9	12
13	BLK-1	blank		0.5	13
14	BLK-1	blank		0.0	14
15	BLK-1	blank		0.7	15
16	BLK-1	blank		0.4	16
17	BLK-1	blank		0.1	17
18	BLK-1	blank		0.3	18
19	BLK-1	blank		1.1	19
20	BLK-1	blank		0.6	20
21	LOW-1	low	2	1.8	1
22	LOW-1	low	2	2.3	2
23	LOW-1	low	2	2.0	3
24	LOW-1	low	2	2.5	4
25	LOW-1	low	2	1.7	5
26	LOW-1	low	2	2.2	6
27	LOW-2	low	4	3.6	1
28	LOW-2	low	4	4.4	2
29	LOW-2	low	4	4.1	3
30	LOW-2	low	4	3.9	4
31	LOW-2	low	4	4.5	5
32	LOW-2	low	4	3.8	6

1 Results

1.1 Low-level and blank results

Table 2. Low-level materials

Material	Assigned (ng/L)	N	Mean (ng/L)	SD (ng/L)	SD 95% CI (ng/L)	Mean – LoD (ng/L)	Above LoB
LOW-1	2	6	2.08	0.306	0.19–0.75	+0.53	6 of 6
LOW-2	4	6	4.05	0.351	0.22–0.86	+2.49	6 of 6

Table 3. Blank results

Item	Value	Item	Value
Materials	BLK-1	Median	0.35 ng/L
Results per material	20	Minimum	0.00 ng/L
Mean	0.40 ng/L	Maximum	1.10 ng/L
SD	0.313 ng/L		

Table 4. Calculation settings

Item	Value	Item	Value
LoB percentile	95th	Reagent lot on the rows	L1
β	0.05		

2 Study notes

Notes to page 1

*1 The upper 95% confidence limit of the 95th percentile is not estimable from 20 values. At least 72 are needed.

Other notes

- 2. The LoD 1.56 ng/L is below every material mean (lowest 2.08 ng/L). Detection at the LoD was not tested directly.
- 3. Only 11 distinct values among 20 exact blank results, so the LoB percentile is coarse.
- 4. The pooled SD assumes similar SDs across materials. The largest material SD is 1.146 times the smallest.