

Supplemental Table 1. Effects of Biometals at Multiple Phases of STEC and EPEC Pathogenesis.

Metal:	Luminal Phase					Epithelial Barrier and Translocation Phase		Stx Cellular Intoxication Phase	Reference(s)
	LEE and adhesins	Cipro-induced <i>recA</i>	Cipro-induced <i>stx</i> RNA	Basal Stx Toxin protein	Cipro-induced Stx Toxin protein	Effects on H ₂ O ₂ -induced Epithelial Damage	Translocation of Stx Across Epithelium	Ability to Block Cell Death	
Zinc	↓	↓↓	↓↓	↓↓	↓↓	↓	↓↓	n.d.	This study
Copper	n.d.	---	↓	n.d.	↓↓	---	↓↓	n.d.	This study and [1]
Manganese	↑	---	↓	↑	---	---	---; ↑ at 0.5 mM	↓ for Stx1 in Hela cells; no effect on Stx2	[1-4] and this study
Iron	n.d.	---	↑↑	n.d.	n.d.	--- or slight ↑	--- or slight ↑	n.d.	[1]
Nickel	n.d.	---	↓↓	↑	n.d.	---	---	n.d.	[1]

Legend: ---, no effect; ↓↓, ≥ 75% reduction; ↓, 50 to 75 % reduction; ↑, ≥ 2-fold increase; n.d., not done

References Cited in Supplemental Table

1. Crane JK, Byrd IW, Boedeker EC: **Virulence Inhibition by Zinc in Shiga-Toxigenic Escherichia coli.** *Infection and immunity* 2011, **79**:1696.
2. Beltrametti F, Kresse AU, Guzmán CA: **Transcriptional Regulation of the *esp* Genes of Enterohemorrhagic Escherichia coli.** *Journal of Bacteriology* 1999, **181**:3409-3418.
3. Mukhopadhyay S, Linstedt AD: **Manganese Blocks Intracellular Trafficking of Shiga Toxin and Protects Against Shiga Toxicosis.** *Science* 2012, **335**:332-335.
4. Gaston MA, Pellino CA, Weiss AA: **Failure of Manganese to Protect from Shiga Toxin.** *PLoS ONE* 2013, **8**:e69823.