Supplementary Material 1. Summary of the four Mesozoic volcanic-plutonic assemblages and their main lithologies (after Sewell et al. 2000)

Magmatic		Volcanic Group		Granitic Suite		
Episode, Age (Ma)	Name	Main lithology	Samples	Name	Main lithology	Samples
1. 164-160	Tsuen Wan Volcanic Group	Rhyodacitic ash tuff, dacitic lava, and tuff breccias	HK11821 HK11837 HK12025 HK12026 HK13339	Lamma Suite	Granite and granodiorite	HK8754
2. 148-146	Lantau Volcanic Group	Rhyolitic vitric tuff and lava, with tuffaceous sediments	HK13330 HK13332	Kwai Chung Suite	Granite and rhyolitic porphyry dykes	HK11831 HK11839 HK12003 HK13278
3. 143	Repulse Bay Volcanic Group	Rhyolitic to trachytic ash tuff, with tuffaceous sediments	HK11832 HK11835 HK11836 HK11840 HK12076 HK13275	Cheung Chau Suite	Granite and quartz monzonite	HK8353
4. 141-140	Kau Sai Chau Volcanic Group	Rhyolitic vitric tuff, rhyolitic lava and trachydacitic lava	HK12001 HK13277	Lion Rock Suite	Granite and quartz monzonite	HK8758 HK11042 HK12022 HK12023