

**DAFTAR ISI**

SKRIPSI.....	i
SKRIPSI.....	ii
LEMBAR PENGESAHAN .....	iii
PENETAPAN PANITIA PENGUJI SKRIPSI .....	iv
SURAT PERNYATAAN TENTANG ORISINALITAS .....	v
<i>ABSTRACT</i> .....	viii
ABSTRAK .....	ix
DAFTAR ISI.....	x
Daftar Tabel .....	xiii
DAFTAR GAMBAR .....	xiv
DAFTAR SINGKATAN .....	xv
DAFTAR LAMPIRAN.....	xvi
BAB 1 PENDAHULUAN .....	1
1.1 Latar Belakang.....	1
1.2 Rumusan Masalah.....	3
1.3 Tujuan Penelitian .....	3
1.4 Manfaat Penelitian .....	4
1.4.1. Manfaat Teoritis .....	4
1.4.2. Manfaat Praktis .....	4
BAB 2 TINJAUAN PUSTAKA .....	5
2.1 Kanker.....	5
2.1.2.1 Transduksi sinyal .....	7
2.1.2.2 Apoptosis .....	9
2.1.2.3 Invasi jaringan dan metastasis .....	12
2.1.2.4 Angiogenesis.....	14
2.2 Squamous Cell Carcinoma (SCC) .....	16
2.3 Epithelial–Mesenchymal Trantition (EMT) .....	17
2.4 Sel HOC313 .....	21
2.5 $\alpha$ - Mangostin.....	21
2.6 Uji Sitotoksisitas .....	22

2.6.1	Viabilitas sel.....	23
2.6.2	Tetrazolium reduction.....	24
2.6.2.1	MTT Tetrazolium Assay.....	24
BAB 3 KERANGKA KONSEPTUAL DAN HIPOTESIS .....		25
3.1	Kerangka Konseptual.....	25
3.2	Penjelasan Kerangka Konseptual.....	26
3.3	Hipotesis .....	27
BAB 4 METODOLOGI PENELITIAN.....		28
4.1	Jenis Penelitian.....	28
4.2	Rancangan Penelitian.....	28
4.3	Sampel Penelitian.....	30
4.3.1	Sampel Penelitian dan Bahan Uji .....	30
4.3.2	Besar Sampel Penelitian .....	30
4.4	Variabel Penelitian.....	31
4.4.1	Variabel Terikat .....	31
4.4.2	Variabel Bebas .....	31
4.4.3	Variabel Kontrol .....	31
4.5	Definisi Operasional .....	31
4.5.1	$\alpha$ - mangostin .....	31
4.5.2	Viabilitas Sel.....	32
4.6	Tempat dan Waktu Penelitian.....	32
4.6.1	Tempat Penelitian .....	32
4.6.2	Waktu Penelitian.....	32
4.7	Alat dan Bahan.....	32
4.7.1	Alat.....	32
4.7.2	Bahan .....	33
4.8	Prosedur Penelitian .....	33
4.8.1	Thawing sel.....	33
4.8.2	Uji Sitotoksitas .....	34
4.9	Alur Penelitian .....	35
4.10	Analisa data.....	36

BAB 5 HASIL PENELITIAN DAN ANALISIS DATA .....	37
2.2 Hasil Penelitian .....	37
2.3 Hasil Analisis Data .....	39
2.3.1 Uji Normalitas.....	40
2.3.2 Uji Homogenitas .....	41
2.3.3 Uji Kruskal Wallis .....	41
2.3.4 Uji Mann-Whitney .....	42
BAB 6 PEMBAHASAN.....	43
BAB 7 SIMPULAN DAN SARAN.....	47
7.1 Simpulan .....	47
7.2 Saran.....	47
DAFTAR PUSTAKA .....	48

**Daftar Tabel**

**Tabel 5.1** Rata – Rata dan Simpang Baku *optical density* sel kanker HOC313...38

**Tabel 5.2.** Hasil Uji Normalitas data konsentrasi (mg/ml) dan kontrol.....41

**Tabel 5.3** Uji Homogenitas dengan *Levene Statistic*.....42

**Tabel 5.4.** Hasil uji *Kruskal-Wallis* Antar Kelompok Perlakuan.....42

**Tabel 5.5.** Hasil Uji Mann-Whitney Antar Kelompok Perlakuan.....43

**DAFTAR GAMBAR**

Gambar 2.1 Jenis Sel EMT. (A) EMT Tipe 1, (B) EMT Tipe 2, (C) EMT Tipe 2.....	19
Gambar 2.2 Sel HOC313.....	20
Gambar 5.1 Grafik Rata - Rata <i>optical density</i> dan simpang baku sel.....	40

**DAFTAR SINGKATAN**

EMT	: <i>Epithelial Mesenchymal Transition</i>
OSCC	: Karsinoma Sel Skuamosa Rongga Mulut
SCC	: Karsinoma Sel Skuamosa
EGF	: <i>Human epidermal growth factor</i>
TGF- $\beta$	: <i>transforming growth factor-<math>\beta</math></i>
ECM	: <i>Extracellular Matrix</i>
PMN	: <i>Pre-Metastatic Niche</i>
DTC	: <i>Disseminated Tumor Cells</i>
MMP	: <i>Matrix Metalloproteinase</i>
VEGF	: <i>Vascular Endothelial Growth Factor</i>
PDGF	: <i>Platelet-derived Growth Factor</i>
HGF	: <i>Hepatocyte Growth Factor</i>
IGF	: <i>Insulin-like Growth Factor</i>
FGF	: <i>Fibroblast Growth Factor</i>
TNF	: <i>Tumor Necrosis Factor</i>
TRAIL	: <i>TNF-Related apoptosis-inducing ligand</i>
TRADD	: <i>TNFR Associated Death Domain</i>
MOM	: <i>Mitochondria Outer Membrane</i>
MOMP	: <i>Mitochondria Outer Membrane Permeabilization</i>
SMAC	: <i>Second Mitochondria-Derived Activator of Caspase</i>
MPTP	: <i>Mitochondrial Potential Transition Pore</i>
MTT	: 3-(4,5-dimethylthiazole-2-yl)-2,5-diphenyltetrazolium bromide

**DAFTAR LAMPIRAN**

<b>Lampiran 1.</b> Laik Etik .....	54
<b>Lampiran 2.</b> Hasil Uji sitotoksitas .....	55
<b>Lampiran 2.</b> Hasil Analisis Statistik.....	56