

Bogotá D.C.,
2020

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
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DEP: 20 NUECREACIONES	
TRA: 02 PATENTES	EVE: 323 ANUALIDADES
ACT: 440 RESPUESTA	Folios: 2

Doctor(a)
CASTILLO BONILLA JERONIMO
CALLE 93 A NO. 14-17 OFICINA 311
BOGOTA D.C.

Asunto:	Radicación:	0 52852
	Trámite:	2
	Evento:	323
	Actuación:	440
	Folios:	2

Apreciado(a) doctor(a):

En atención al contenido de las comunicaciones relacionadas con el expediente citado en el asunto, adjunto le remito la certificación con la información de los pagos de la(s) tasa(s) de mantenimiento del certificado de Patente de Invención número 28680.

Es de anotar que la aplicación de los pagos se hace de acuerdo a la fecha de presentación y al período solicitado en tal escrito. En el caso de presentar en la casilla período/estado: PENDIENTE APLICACIÓN O DESGLOSE; se solicita informe a esta oficina si desea que sea aplicado para el siguiente período, de ser así, deberá manifestarlo por escrito como complemento de información a la anualidad. Lo anterior debe hacerse de acuerdo a lo dispuesto en el artículo 80 de la Decisión 486/00 y la resolución de tarifas vigente.

En el evento de no aceptar la aplicación indicada en el párrafo anterior, si lo estima conveniente podrá solicitar por escrito el desglose del(los) mencionado(s) pago(s).

Atentamente,



MARIA CONSUELO CASIJ REY
Secretaría General Ad Hoc

Al contestar favor indique el número
de radicación consignado en el rótulo

Sede Centro: Carrera 13 No. 27-00 pisos 2, 5, 7 y 10 PBX: 5870000
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RAD.: 0 52852

Secretaría General Ad Hoc

CERTIFICA

Que de conformidad con lo dispuesto en el artículo 80 de la Decisión 486 de la Comisión de la Comunidad Andina y las resoluciones de las tasas aplicables; se allegaron los siguientes recibos oficiales de caja, correspondientes a las tasas de mantenimiento del certificado de Patente de Invención número 28680:

Recibo	Fecha Radicado	Presentado Por	Período o Estado (AAAA/MM/DD)
7-55406	2007/07/17	CASTILLO TORRES SANDRA PATRICIA	2007/07/13 al 2008/07/13
8-55753	2008/07/11	CASTILLO BONILLA JERONIMO	2008/07/13 al 2009/07/13
9-51265	2009/07/13	CASTILLO BONILLA JERONIMO	2009/07/13 al 2010/07/13

Se expide en Bogotá D.C., a los 29 días del mes de Septiembre de 2009

MARIA CONSUELO CASIJ REY

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VIRUS	PK15	USA	France
F98 1C9	≥ 10000	<100	100
F99 2H1	≥ 10000	<100	<100
F99 3H4	≥ 10000	100	<100

* Reciprocal of the last dilution of the serum or of the monoclonal antibody which gives a positive reaction in indirect immunofluorescence.

Example 20

Experimental Production of the Porcine Multisystemic Wasting Syndrome—Protocol 1

Three-day old gnotobiotic piglets obtained by caesarean and kept in an isolating unit were inoculated with virus solutions of PCV. The type II PCV viruses used were the Imp 1010 isolate and the virus obtained from lymph node homogenates obtained from diseased pigs. Five groups were formed. The piglets were all inoculated at the age of three days by the oronasal route with 1.5 ml of virus solution according to the following scheme:

Group	Number	Virus	Dose
A	5	Lymph node homogenate	ND
B	5	Imp. 1010 (low passage)	10^2 TCID ₅₀
C	4	Imp. 1010 (high passage)	10^2 TCID ₅₀
D	2	Lysate of PK15 cells free of PCV virus	—
E	3	—	—

Results of the experimental challenge: During the 5-week observation period, the piglets did not develop clinical signs, apart from one animal in group B which showed substantial exhaustion. At autopsy, the pigs in groups A, B and C exhibit hyperplasia of the lymph nodes (size 2 to 10 times greater than that for the animals in groups D and E), in particular of the submaxillary, bronchial, mesenteric, iliac and femoral ganglia. This hyperplasia is linked to a considerable expansion of the cortical zones by infiltration by monocytes and macrophages. The piglets in groups A, B and C also exhibit hyperplasia of the bronchial lymphoid tissue. One piglet in each of groups A, B and C has pneumonia. The piglet in group B, which exhibited substantial exhaustion, and one piglet in group A have a gastric ulcer. Moreover, all the animals in groups A, B and C have myositis in the muscular tunica of the stomach and of the intestine. Most of the animals in groups A, B and C have myocarditis, multifocal hepatitis with lymphocyte, macrophage and eosinophile infiltration, as well as cortical and medullary interstitial nephritis. One piglet in group C has a liver whose size is bigger than normal, with disseminated clear foci at its surface. No lesion was observed in the piglets in groups D and E. Coronavirus was isolated from the organs of pigs in groups A, B and C.

Example 21

Experimental Reproduction of the Porcine Multisystemic Wasting Syndrome—Protocols 2 and 1

Conventional piglets, but isolated from their mother from birth, were inoculated with viral solutions of type II PCV, of porcine parvovirus, or with a mixture of the two viruses. The

type II PCV viruses used were the Imp. 1010 and Imp. 1011 isolates (strain 48121). The PPV virus used is an isolate of Canadian origin, Imp. 1005. This virus has a sequence (1% of the sequenced genome) which is identical to that of other known porcine parvovirus strains (PPV strain NADL-2 and Kresse strain). Two experimental protocols were carried out

Protocol 2

Three groups were formed with 3-day-old piglets. The piglets were all inoculated by the oronasal route with 1 ml of viral solution according to the following scheme:

Group	Number	Virus	Dose
A	5	Imp. 1010	10^7 TCID ₅₀
B	5	Imp. 1010 + Imp. 1005	5×10^6 TCID ₅₀
C (control)	2	—	—

Results of the experimental challenge: Group A: 2 piglets died 21 days after the inoculation and one piglet was humanely killed 24 days after the inoculation. Group B: 1 piglet died 23 days after the inoculation and one piglet was humanely killed 24 days after the inoculation. The autopsies carried out on the piglets that died following an infection showed the presence of substantial macroscopic lesions, presence of fluid in the pleural cavity, lung oedema, haemorrhages in the kidneys, whitish lesions in the form of a pin head on the kidneys, hepatic necrosis. These lesions are identical to those observed in the field cases. The autopsies carried out on the sacrificed piglets did not show macroscopic lesions. The histological examinations performed on organs removed from the piglets in groups A and B which died following an infection, as well as in the sacrificed pigs in these 2 groups, showed a typical and complete pattern of the lesions of porcine multisystemic wasting syndrome which are observed in animals in the field: hepatic necrosis, necrosis of the lymph nodes, pancreatic necrosis, focal necrosis and severe haemorrhages in the kidneys, presence of syncytia in the lungs, severe necrosis of the hepatocytes with the presence of nuclear inclusions. It should be noted that a massive quantity of PCV antigen was found in all these lesions (dead or sacrificed pigs), but that the presence of PPV antigen could not be detected in these same lesions. No lesion could be detected in the control piglets in group C.

Protocol 3

Four groups were formed with 4-week-old piglets. The pigs were all inoculated by the oronasal route with 1 ml of viral solution according to the following scheme:

Group	Number	Virus	Dose
A (control)	2	—	—
B	4	Imp. 1005 (PPV)	$10^{5.5}$ TCID ₅₀
C	4	Imp. 1011 (PCV)	10^5 TCID ₅₀
D	4	Imp. 1005 + Imp. 1011	$10^2 + 5 \times 10^4$ TCID ₅₀

Results of the experimental challenge: 1 "control" piglet and 2 piglets in each experimental group (B, C and D) were humanely killed and subjected to autopsy 2 weeks after inoculation. Significant immunohistological lesions were observed in the two piglets in group D (PCV+PPV coinfection). It should be noted that it was not possible to detect the presence of porcine parvovirus in these lesions, although a seroconversion in relation to the porcine parvovirus was observed in all the pigs in group D. No macroscopic